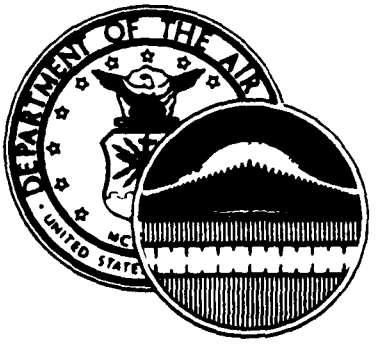

UNITED STATES AIR FORCE

OCCUPATIONAL SURVEY REPORT

COMMUNICATIONS-COMPUTER SYSTEMS CONTROL

AFSC 493X0

AFPT 90-307-803

JANUARY 1989

OCCUPATIONAL ANALYSIS PROGRAM
USAF OCCUPATIONAL MEASUREMENT CENTER
AIR TRAINING COMMAND
RANDOLPH AFB, TEXAS 78150-5000

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PREFACE

This report presents the results of an Air Force occupational survey of the Communications-Computer Systems Control career ladder (AFSC 493X0). This survey was requested by HQ USAF, Chief, Human Resources Division, ACS/System for Command, Control, Communication, and Computers. The objective of this survey is to provide data for updating career ladder documents (AFR 39-1, STS, POI, and CDCS). Authority for conducting occupational surveys is contained in AFR 35-2. Computer printouts from which this report was produced are available for use by operations and training officials upon request. Keywords: Job analysis, Personnel development, Skills, Air force training, Air force personnel, (SDW)

The survey instrument was developed by Mr Roberto B. Salinas, Inventory Development Specialist. Dr David E. Williams, Occupational Analyst, analyzed the data and wrote the final report. Mr Wayne J. Fruge provided computer programming support for the project. Administrative support was provided by Ms Linda Sutton. This report has been reviewed and approved by Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies are available upon request to the USAF Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB, Texas 78150-5000.

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SUMMARY OF RESULTS

1. Survey Coverage. A total of 1,595 members of the Communications-Computer Systems Control career ladder, representing 63 percent of the assigned strength, were surveyed worldwide and across all user commands. The sample included 3-, 5-, 7-, and 9-skill levels and CEM Code 49300 and was representative in terms of MAJCOMs and paygrade groups.

2. Specialty Jobs. AFSC 493X0 personnel were performing a wide variety of jobs. Twelve major job clusters, 6 job types, and 11 independent job types were identified in this analysis. These clusters and independent job types relate primarily to circuit monitoring and analysis, system maintenance, supervision, training, and administration.

3. Career Ladder Progression. The AFSC 493X0 career ladder follows the usual pattern of career progression. At the 3- and 5-skill levels, personnel are performing mostly technical tasks, while at the 7-skill level, personnel perform both technical and supervisory tasks. The 9-skill level and CEM code personnel are performing primarily management and supervisory functions. The AFR 39-1 Specialty Descriptions for the career ladder accurately reflect the jobs and tasks performed by personnel at each skill level.

4. Training Analysis. The STS for AFSC 493X0 provides appropriate support for the tasks and jobs performed. There are, however, some nonsupported paragraphs which need review. In addition, several tasks not referenced to the STS need review for possible inclusion. The POI for the basic E3ABR course is also providing training on those tasks which incumbents will perform in their initial assignments. However, several nonsupported objectives and unreferenced tasks were noted.

5. Comparison to Previous Survey. The results of this OSR were compared with those from the 1980 study. Results of both studies were similar, with only minor differences noted.

6. Implications. The AFSC 493X0 career ladder has remained relatively stable over the past several years as far as functional responsibilities are concerned. Personnel are relatively satisfied with their jobs and, for the most part, perceive their talents and training as being adequately utilized. Good career ladder progression is noted. Overseas personnel perform slightly broader jobs than CONUS personnel. The STS is basically supported, although some paragraphs , as well as a number of unreferenced tasks should be reviewed. The basic ABR course at Keesler AFB appears adequate in meeting training needs of first-enlistment personnel, although, as with the STS, a review is recommended.

OCCUPATIONAL SURVEY REPORT
COMMUNICATIONS-COMPUTER SYSTEMS CONTROL CAREER LADDER
(AFSC 493X0)

INTRODUCTION

This is a report of an occupational survey of the Communications-Computer Systems Control career ladder (AFSC 493X0). This survey was completed by the Occupational Analysis Division, USAF Occupational Measurement Center, in October 1988. This specialty was last surveyed in 1980. This survey was requested by HQ USAF, Chief, Human Resources Division, ACS/Systems for Command, Control, Communication, and Computers, to secure current job and task data to be used in updating career ladder documents (AFR 39-1 Specialty Descriptions, STS, POI, and CDCs).

Background

The 493X0 AFSC was created 30 April 1986 as part of a major realignment of the communications specialty career ladders. In this realignment, all former communications specialties were placed under the 49XXX career field. AFSC 307X0, Telecommunications Systems Control, was converted to AFSC 493X0 and retitled Communications-Computer Systems Control. Personnel and major functions did not change.

The primary responsibilities of Communications-Computer Systems Control Personnel, as described in AFR 39-1 Speciality Descriptions, are to "monitor, analyze, and control the performance of communication systems; coordinate operation of transmission media, networks, and circuits; correct conditions interfering with effectiveness; and direct and make operational adjustments to communications-computer systems equipment."

Entry into the career ladder is from Basic Military Training School (BMTS) through a Category A, 18.2-week course (E3ABR49330) conducted at Keesler AFB MS. Student flow is approximately 503 personnel per year. Once initial training is completed and AFSC 493X0 personnel are assigned to operating bases, they receive more job-related training through the OJT program, some localized training, and other advanced courses as needed.

SURVEY METHODOLOGY

Inventory Development

The data collection for this occupational survey was accomplished by using USAF Job Inventory AFPT 90-307-803, dated July 1987. A tentative task list was prepared after reviewing current career ladder documents, tasks from previous AFSC 307X0 job inventories, and data from the previous occupational survey report (OSR). The tentative task list was then validated through personal interviews with 59 subject-matter experts at 14 operational bases. A background section was constructed, containing questions regarding incumbents' grade, duty title, total time in the career field, time in present job, total active federal military service, job satisfaction data, and other career ladder-related items. Bases visited to validate the task list were determined primarily from recommendations by career ladder functional managers and training personnel. These locations were chosen to ensure that representative missions performed within the AFSC 493X0 career ladder were adequately covered. Bases visited were:

Hickman AFB HI	Major switching center for PACAF area
Randolph AFB TX	Base test facility function
Keesler AFB MS	Tech school location
Tinker AFB OK	Mobility functions
Cheyenne MT CO	High speed data functions
Onizuka AFS CA	Satellite functions
McClellan AFB CA	Technical control center functions
Andrews AFB MD	Major technical control facility; also has satellite, microwave, autodin, and primary control center functions
HQ DCA Wash DC	DCA functions
Fort Huachuca AZ	Computerized mobility functions
Shaw AFB SC	Air support operation center
Kelly AFB TX	ESC command and BCT facility
Torrejon AB Spain	New concepts comm network
RAF Croughton UK	European technical control center and AUTODIN switching functions

A final inventory consisting of 634 tasks grouped under 11 duty headings was developed and validated for use in this survey.

Survey Administration

Consolidated Base Personnel Offices (CBPO) at operational bases worldwide administered the inventory to DAFSC 493X0 personnel holding 3-, 5-, 7-, and 9-skill levels and CEM Code 49300. Administration occurred from August 1987 to March 1988. Individuals were selected from a computer-generated mailing list obtained from personnel data tapes maintained by the Air Force Human Resources Laboratory (AFHRL).

Survey Sample

Personnel were selected for this survey to ensure an accurate representation across major commands (MAJCOM) and paygrade groups. Of the 2,542 assigned personnel, 2,123 were mailed inventory booklets. Table 1 displays the percent of assigned distribution, by MAJCOM, of personnel in the career ladder as of November 1986. Also listed, by MAJCOM, is the percent distribution of the respondents in the final sample. The 1,595 respondents in the final sample represent 63 percent of the personnel assigned to the Communications-Computer Systems Control career ladder. Table 2 reflects the sample distribution by paygrade groups. From these tables, it can be seen that the final sample was representative of the career ladder.

Data Processing and Analysis

Once job inventories are returned from the field, the responses to both background and task information are checked for completeness and the data are then entered into the computer. Specialized computer analysis programs, called Comprehensive Occupational Data Analysis Programs (CODAP), are then applied to the data and various computer products are generated to aid in data analysis.

Computer-generated job descriptions are produced for groups of respondents, including DAFSC, Time in Service (TAFMS), Time in Career Field (TICF), MAJCOMs, and Conus/overseas groups, as well as Specialty Job groups. These descriptions include such information as percent members performing each task and the average percent time spent on each task.

Task Factor Administration

In addition to completing a job inventory, selected senior AFSC 493X0 personnel were asked to complete a second booklet for either training emphasis (TE) or task difficulty (TD). The TE and TD booklets are processed separately from the job inventories. Rating information is discussed in more detail in the training section of this report.

Task Difficulty (TD). Each person completing a TD booklet was asked to rate all inventory tasks on a 9-point scale (from extremely low to extremely high) as to the relative difficulty of those tasks. Difficulty is defined as the length of time required by an average incumbent to learn to do a particular task. Task difficulty data were independently collected from 57 senior-level AFSC 493X0 personnel stationed worldwide. Interrater reliability (as assessed through components of variance of standardized group means) was .93, which indicates high agreement among the 57 raters as to which tasks are the most difficult to learn to perform. Ratings are adjusted so tasks of average difficulty have ratings of 5.00, with a standard deviation of 1.00. The resulting data is essentially a rank ordering of tasks, indicating the relative degree of difficulty for each task in the inventory.

TABLE 1

COMMAND REPRESENTATION OF SURVEY SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
AFCC	86	86
USAFE	2	2
TAC	3	2
AF ELEMENT EUR	2	2
AF ELEMENT OTHER	3	3
ATC	2	2
OTHERS	2	3

TOTAL PERSONNEL ASSIGNED: 2,542
TOTAL PERSONNEL ELIGIBLE FOR SURVEY: 2,133
TOTAL PERSONNEL IN SAMPLE: 1,595
PERCENT OF ASSIGNED IN SAMPLE: 63%
PERCENT OF ELIGIBLE IN SAMPLE: 75%

TABLE 2

PAYGRADE REPRESENTATION OF SURVEY SAMPLE

PAYGRADE	PERCENT OF SAMPLE	PERCENT OF ASSIGNED
AIRMEN	13	14
E-4	11	10
E-5	29	29
E-6	22	21
E-7	17	17
E-8	5	5
E-9	3	4

As of 8 Jul 87

Training Emphasis (TE). Another group of 56 senior technicians was selected to complete a TE booklet. This involved rating the inventory tasks on a 10-point scale from 0 (no training required) to 9 (extremely high training emphasis). The interrater reliability (as assessed through components of variance of standardized group means) for the 56 raters surveyed was .94, indicating a high level of agreement among raters as to which tasks require some form of structured training and the relative amount of emphasis that should be placed on those tasks. Training emphasis is a rating of which tasks, in the opinion of the raters, require structured training for first-term personnel. Structured training is defined as training provided at the resident technical school, field training detachment (FTD), mobile training teams, formal OJT, or any other organized training methods.

When used in conjunction with other factors, such as percent members performing and TD ratings, TE data provide insight into what the training requirements of the career field are. For the AFSC 493X0 career ladder, the average TE rating is 2.29, and the standard deviation is 2.17. Tasks rated 4.46 or higher are considered the primary tasks for first-term training programs within the career ladder.

SPECIALTY JOBS
(Career Ladder Structure)

An important part of each occupational survey is to examine the overall job structure that exists within a career ladder, as well as how these jobs relate to each other. This is accomplished by examining what job incumbents indicate they are actually doing, rather than what the official career field documents dictate they should be doing. The automated job clustering program inherent in the CODAP system plays an integral part in the analysis of the actual job structure for a career ladder. Job groups are formed based on similarity of tasks performed and relative time spent performing those tasks. Starting with career ladder structure data, a thorough examination of the accuracy and completeness of career ladder documents (AFR 39-1 Specialty Descriptions and Specialty Training Standards) is conducted and an understanding of current utilization patterns is formulated.

The occupational analysis process consists of determining the functional job structure of career ladder personnel in terms of clusters, job types, and independent job types. A job type is a group of individuals who perform many of the same tasks and also spend similar amounts of time performing them. When there is a substantial degree of similarity between different job types, they are grouped together and labeled as clusters. Finally, there are often cases of specialized job types that are too dissimilar to be grouped into any cluster. These unique groups are called independent job types.

Overview of Specialty Jobs

The job structure of the Communications-Computer Systems Control career ladder was determined by a job type analysis of survey data from 1,595 respondents. This analysis identified 12 clusters, 6 job types, and 11 independent job types. These jobs are illustrated in Figure 1 and listed below. The stage (STG) number shown beside each title is a reference to computer-printed information. The number of personnel in each job group (N) is also shown.

I. SYSTEMS TEST AND EVALUATION TEAM PERSONNEL CLUSTER (STG044, N=28)

II. TELECOMMUNICATION SERVICE SYSTEMS ANALYSIS PERSONNEL CLUSTER (STG150, N=11)

III. SHIFT LEADERS AND SUPERVISORS CLUSTER (STG143, N=34)

IV. NETWORK CONTROLLERS CLUSTER (STG239, N=40)

V. AUTODIN SWITCHING CENTER PERSONNEL CLUSTER (STG282, N=32)

VI. SHIFT SUPERVISORS AND NCOIC INDEPENDENT JOB TYPE (STG308, N=20)

VII. CRITICOMM CONTROLLERS IJT (STG375, N=5)

VIII. OVERSEAS DCS TECHNICAL CONTROLLERS CLUSTER (STG130, N=28)

IX. DCS AUTOMATED TECHNICAL CONTROL IJT (STG158, N=14)

X. COMMUNICATIONS SYSTEMS TECHNICAL CONTROL PERSONNEL CLUSTER (STG125, N=541)

XI. CIRCUIT ACTIONS PERSONNEL CLUSTER (STG190, N=84)

XII. CONTROL TEST FACILITY CABLE REPAIR PERSONNEL IJT (STG200, N=5)

XIII. COMBAT COMMUNICATIONS SYSTEMS PERSONNEL IJT (STG238, N=117)

XIV. COMMUNICATIONS SYSTEMS CONTROL SUPERVISORY PERSONNEL CLUSTER (STG072, N=247)

XV. TRAINING NCOs IJT (STG847, N=17)

XVI. BASE CONTROL TEST FACILITY PERSONNEL IJT (STG169, N=10)

XVII. TRAINING INSTRUCTORS (TECHNICAL SCHOOL) IJT (STG111, N=24)

XVIII. MOBILITY/CONTINGENCY PERSONNEL CLUSTER (STG052, N=17)

XIX. PERFORMANCE MONITORS AND EVALUATION PERSONNEL CLUSTER (STG037, N=52)

COMMUNICATION-COMPUTER SYSTEMS CONTROL SPECIALTY JOBS
(PERCENT MEMBERS RESPONDING)

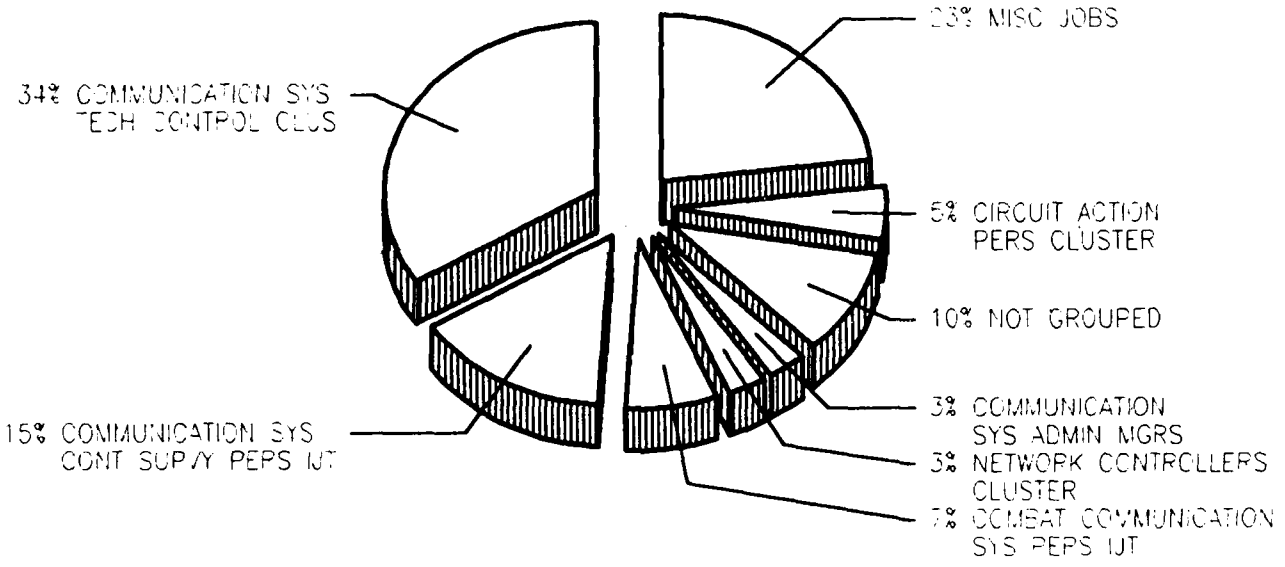

FIGURE 1

XX. PRIMARY CONTROL CENTER/SATELLITE SYSTEMS PERSONNEL IJT (STG211, N=9)

XXI. COMPUTER OPERATORS/ADMINISTRATIVE TECHNICIANS CLUSTER (STG079, N=38)

XXII. COMMUNICATION SYSTEMS ADMINISTRATION MANAGERS IJT (STG133, N=36)

XXIII. SYSTEMS EVALUATORS/QUALITY ASSURANCE PERSONNEL IJT (STG187, N=13)

The respondents forming these groups account for 90 percent of the survey sample. The remaining 10 percent, though reporting similar job titles, are personnel whose responsibilities differ enough that they do not group with any of the identified specialty jobs.

Group Descriptions

The following paragraphs contain brief descriptions of the clusters, job types, and independent job types identified within the AFSC 493X0 career ladder. Relative percent time spent on duties for each group is presented in Table 4, while Table 3 reflects selected background data for each group. The discussion presented is limited to a brief description of the respondents who comprise the jobs and examples of tasks performed. Extensive lists of representative tasks performed by each specialty job discussed below are provided in Appendix A.

I. SYSTEMS TEST AND EVALUATION TEAM PERSONNEL CLUSTER (STG044, N=28). This cluster of 28 members is primarily involved with systems test and evaluation. They are members of a test and evaluation team and, as such, travel to and from various locations where problems exist. Their main tasks are to identify and correct problems or recommend corrective action to other responsible parties. These personnel spend a majority of their time (76 percent) on tasks related to three broad duty categories--performing circuit monitoring and analysis, performing wideband systems performance monitoring and analysis, and maintaining telecommunications service. Thirty-two percent of these personnel are assigned overseas. They perform an average of 40 tasks. Common tasks include:

perform manual idle channel noise tests
perform manual impulse noise tests
perform manual amplitude vs frequency tests (frequency response test)
perform manual envelope delay distortion tests
perform manual phase jitter tests
perform maximum change in audio frequency tests
perform automated amplitude vs frequency tests (frequency response tests)

TABLE 3

SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND SUBCLUSTERS

	SYS TEST & EVAL TEAM PERS (STG044)	TELECOM SYS ANLYS SVS PERSONNEL (STG150)	SHIFT LDR/ SUPVRS (STG143)	NETWORK CONTROLLERS (STG239)	AUTODIN SWITCHING CTR PERS (STG282)	SHIFT SUPVRS & NCOICs (STG308)
NUMBER IN GROUP	28	11	34	40	32	20
PERCENT OF SAMPLE	2%	1%	2%	3%	2%	1%
PERCENT OVERSEAS	32%	82%	0%	5%	31%	10%
DAFSC DISTRIBUTION:						
49330	7%	45%	24%	25%	19%	5%
49350	25%	45%	71%	65%	72%	70%
49370	68%	9%	5%	10%	9%	25%
49390	0%	0%	0%	0%	0%	0%
49300	0%	0%	0%	0%	0%	0%
AVERAGE TICF (MONTHS)	107	35	44	50	35	53
AVERAGE TAFMS (MONTHS)	135	52	65	67	57	95
PERCENT IN FIRST ENLISTMENT	7%	64%	53%	45%	44%	0%
AVERAGE NUMBER OF TASKS PERFORMED	40	34	31	55	58	65
AVERAGE NUMBER SUPERVISED	2	7	2	2	2	3

* Less than 1 percent

TABLE 3 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND SUBCLUSTERS

	CRITICOMM CONTROL PERSONNEL (STG375)	OVERSEAS DCS TECH CONTROL (STG130)	DCS AUTO TECH CONTR PERSONNEL (STG158)	COMM SYS TECH CONTR PERSONNEL (STG125)	CIRCUIT ACTIONS PERSONNEL (STG190)	CONT TEST FACILITY CABLE REPR (STG200)
NUMBER IN GROUP	5	28	14	541	84	5
PERCENT OF SAMPLE	*	2%	1%	34%	5%	*
PERCENT OVERSEAS	44%	86%	64%	70%	44%	0%
DAFSC DISTRIBUTION:						
49330	20%	21%	36%	26%	7%	0%
49350	80%	68%	64%	65%	61%	80%
49370	0%	11%	0%	9%	31%	20%
49390	0%	0%	0%	0%	1%	0%
49300	0%	0%	0%	0%	0%	0%
AVERAGE TICF (MONTHS)	19	49	31	38	70	95
AVERAGE TAFMS (MONTHS)	77	61	48	59	91	109
PERCENT IN FIRST ENLISTMENT	20%	57%	57%	53%	20%	0%
AVERAGE NUMBER OF TASKS PERFORMED	71	46	52	115	97	47
AVERAGE NUMBER SUPERVISED	0	1	2	3	2	1

* Less than 1 percent

TABLE 3 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND SUBCLUSTERS

	COMBAT COMM SYS PERSONNEL (STG238)	COMM SYS CONTROL SUPVRS (STG072)	TRAINING NCOs (STG847)	BASE CTR TEST FCLTY PERS (STG169)	TRAINING INSTRS (STG111)	MOBILITY/ CONTINGENCY PERSONNEL (STG052)
NUMBER IN GROUP	117	247	17	10	24	17
PERCENT OF SAMPLE	7%	15%	1%	1%	2%	1%
PERCENT OVERSEAS	0%	51%	59%	10%	0%	29%
DAFSC DISTRIBUTION:						
49330	17%	2%	0%	40%	0%	29%
49350	60%	26%	71%	50%	54%	59%
49370	23%	62%	29%	10%	46%	12%
49390	0%	7%	0%	0%	0%	0%
49300	0%	3%	0%	0%	0%	0%
AVERAGE TICF (MONTHS)	56	118	71	76	113	38
AVERAGE TAFMS (MONTHS)	89	174	83	94	114	54
PERCENT IN FIRST ENLISTMENT	32%	1%	23%	20%	8%	41%
AVERAGE NUMBER OF TASKS PERFORMED	144	104	37	38	34	34
AVERAGE NUMBER SUPERVISED	4	5	2	3	4	5

* Less than 1 percent

TABLE 3 (CONTINUED)

SELECTED BACKGROUND DATA FOR CAREER LADDER CLUSTERS AND SUBCLUSTERS

	PERFORMANCE MONITORS & EVAL PERS (STG037)	PRIMARY CONTR CEN/ SATELLITE SYS PERSONNEL (STG211)	COMP OPRS/ ADMIN TECHS (STG079)	COMM SYS ADMIN MGRS (STG133)	SYSTEM EVAL/QA (STG187)
NUMBER IN GROUP	52	9	38	36	13
PERCENT OF SAMPLE	3%	1%	2%	3%	1%
PERCENT OVERSEAS	50%	44%	42%	27%	77%
DAFSC DISTRIBUTION:					
49330	4%	11%	0%	4%	0%
49350	58%	56%	24%	23%	15%
49370	36%	33%	74%	69%	77%
49390	2%	0%	2%	4%	0%
49300	0%	0%	0%	0%	8%
AVERAGE TICF (MONTHS)	80	114	133	165	166
AVERAGE TAFMS (MONTHS)	104	123	184	195	212
PERCENT IN FIRST-ENLISTMENT	43%	22%	0%	4%	0%
AVERAGE NUMBER OF TASKS PERFORMED	38	40	35	18	21
AVERAGE NUMBER SUPERVISED	2	3	2	2	0

* Less than 1 percent

TABLE 4

RELATIVE PERCENT TIME SPENT ON DUTIES ACROSS JOB GROUPS

DUTIES	SYS TEST & EVAL TEAM PERS (STG044)	TELECOM SYS ANLYS SVS PERSONNEL (STG150)	SHIFT LDR/ SUPVRS (STG143)	NETWORK CONTROLLERS (STG239)	AUTODIN SWITCHING CTR PERS (STG282)	SHIFT SUPVRS & NCOICs (STG308)
A. ORGANIZING AND PLANNING	1	0	1	1	1	1
B. DIRECTING AND IMPLEMENTING	2	5	6	4	7	14
C. INSPECTING AND EVALUATING	1	1	1	1	1	3
D. TRAINING	1	1	1	1	2	11
E. PERFORMING ADMINISTRATIVE FUNCTIONS	9	16	38	20	28	20
F. PERFORMING CIRCUIT MONITORING & ANALYSIS	49	20	9	15	18	12
G. PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING & ANALYSIS	16	4	2	4	2	2
H. MAINTAINING TELECOMMUNICATIONS SERVICE	11	35	36	45	36	30
I. ERECTING & MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT AND FACILITIES	4	13	4	5	4	4
J. PERFORMING GENERAL TELECOMMUNICATIONS FUNCTIONS	6	3	2	2	1	1
K. PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS FUNCTIONS	0	0	*	1	*	*

* Less than 1 percent

TABLE 4 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES ACROSS JOB GROUPS

DUTIES	CRITICOMM CONTROL PERSONNEL (STG375)	OVERSEAS DCS TECH CONTROL (STG130)	DCS AUTO TECH CONTR PERSONNEL (STG158)	COMM SYS TECH CONTR PERSONNEL (STG125)	CIRCUIT ACTIONS PERSONNEL (STG190)	CONT TEST FACILITY CABLE REPR (STG200)
A. ORGANIZING AND PLANNING	2	1	1	1	5	8
B. DIRECTING AND IMPLEMENTING	1	1	*	1	9	12
C. INSPECTING AND EVALUATING	1	1	*	1	3	3
D. TRAINING	6	1	2	2	2	9
E. PERFORMING ADMINISTRATIVE FUNCTIONS	38	15	20	19	29	25
F. PERFORMING CIRCUIT MONITORING & ANALYSIS	9	43	37	31	15	8
G. PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING & ANALYSIS	2	5	3	8	2	*
H. MAINTAINING TELECOMMUNICATIONS SERVICE	30	25	29	25	24	23
I. ERECTING & MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT AND FACILITIES	2	5	4	5	6	6
J. PERFORMING GENERAL TELECOMMUNICATIONS FUNCTIONS	4	1	*	2	4	6
K. PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS FUNCTIONS	*	*	*	*	*	*

* Less than 1 percent

TABLE 4 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES ACROSS JOB GROUPS

DUTIES	COMBAT COMM SYS PERSONNEL (STG238)	COMM SYS CONTROL SUPVRS (STG072)	TRAINING NCOs (STG847)	BASE CTR TEST FCLTY PERS (STG169)	TRAINING INSTRS (STG111)	MOBILITY/ CONTINGENCY PERSONNEL (STG052)
A. ORGANIZING AND PLANNING	2	14	5	3	1	1
B. DIRECTING AND IMPLEMENTING	5	19	11	4	7	2
C. INSPECTING AND EVALUATING	2	11	3	1	1	1
D. TRAINING	3	11	71	2	40	6
E. PERFORMING ADMINISTRATIVE FUNCTIONS	14	22	8	19	8	17
F. PERFORMING CIRCUIT MONITORING & ANALYSIS	14	6	*	12	20	10
G. PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING & ANALYSIS	1	1	*	2	8	1
H. MAINTAINING TELECOMMUNICATIONS SERVICE	19	9	1	42	13	11
I. ERECTING & MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT AND FACILITIES	33	3	*	5	1	38
J. PERFORMING GENERAL TELECOMMUNICATIONS FUNCTIONS	6	1	*	10	1	13
K. PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS FUNCTIONS	*	*	*	*	*	*

* Less than 1 percent

TABLE 4 (CONTINUED)

RELATIVE PERCENT TIME SPENT ON DUTIES ACROSS JOB GROUPS

DUTIES	PERFORMANCE MONITORS & EVAL PERS (STG037)	PRIMARY CONTR CEN/ SATELLITE SYS PERSONNEL (STG211)	COMP OPRS/ ADMIN TECHS (STG079)	COMM SYS ADMIN MGRS (STG133)	SYSTEM EVAL/QA (STG187)
A. ORGANIZING AND PLANNING	4	2	15	6	8
B. DIRECTING AND IMPLEMENTING	8	10	22	14	12
C. INSPECTING AND EVALUATING	2	2	11	15	49
D. TRAINING	3	3	3	2	8
E. PERFORMING ADMINISTRATIVE FUNCTIONS	66	23	37	53	17
F. PERFORMING CIRCUIT MONITORING & ANALYSIS	3	1	2	1	1
G. PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING & ANALYSIS	2	*	1	*	*
H. MAINTAINING TELECOMMUNICATIONS SERVICE	8	9	5	3	1
I. ERECTING & MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT AND FACILITIES	1	1	3	1	1
J. PERFORMING GENERAL TELECOMMUNICATIONS FUNCTIONS	3	3	1	4	3
K. PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS FUNCTIONS	*	48	*	1	*

* Less than 1 percent

perform automated impulse noise tests
pack or unpack equipment
measure channel levels on baseband signals

Only 7 percent of these personnel are in their first enlistment. Personnel average 135 months in the military, and they supervise an average of two subordinates. Sixty-eight percent hold DAFSC 49370.

Within this cluster, two job types were identified. The primary difference between the two centered around the fact that one group was more involved with manual testing, while the other group was more involved with automated testing.

II. TELECOMMUNICATION SERVICE SYSTEMS ANALYSIS PERSONNEL CLUSTER (STG150), N=11). This group of personnel are telecommunication technicians primarily involved with systems analysis, to include digital circuit fault isolation and related functions. There are two noted variations within this cluster--Zenith 100 and 150 computer personnel and those who do not use computers in the performance of their job. These personnel have an average of 52 months in the military, and 64 percent are in their first enlistment. Eighty-two percent are assigned to overseas locations. They spend a majority of their job time (84 percent) performing tasks related to four broad duty categories--maintaining telecommunications service, performing circuit monitoring and analysis, performing administrative functions, and erecting and maintaining tactical and combat communications equipment and facilities. They perform an average of 34 tasks. Common tasks include:

perform fault isolation on analog circuits
check continuity between local and distant technical controls
check continuity between local technical control and users
coordinate circuit and system outages with users or associated facilities
perform audio channel loop-backs
perform digital circuit loop-backs
check continuity of cables or in-house wiring
perform on-call patches
perform equipment loop-backs
coordinate circuit or equipment problems with other technical controls or communications facilities
adjust line amplifiers
perform continuity checks on patch cords

III. SHIFT LEADERS AND SUPERVISORS CLUSTER (STG143, N=34). These personnel are primarily technicians who perform both technical and supervisory functions. They spend 74 percent of their job time on tasks related to performing administrative functions, and maintaining telecommunications service. They perform an average of 31 tasks. Common tasks include:

coordinate circuit and system outages with users or
associated facilities
participate in alerts or recalls
perform digital circuit loop-backs
patch cryptographic equipment
perform fault isolation on circuits using black digital
patch bays
coordinate circuit or equipment problems with other technical
technical controls or communications facilities
perform equipment loop-backs
prepare master station log forms
perform time hacks on master station clocks

Fifty-three percent of these personnel are in their first enlistment and average 66 months in the military. Seventy-one percent hold DAFSC 49350.

IV. NETWORK CONTROLLERS CLUSTER (STG239, N=40). This cluster of personnel are primarily responsible for monitoring and maintaining the network communications systems for the Air Force. Only 5 percent of these personnel are assigned to overseas locations. A majority of the job time (80 percent) is spent maintaining telecommunications service, performing administrative functions, and performing circuit monitoring and analysis. They perform an average of 55 tasks. Common tasks include:

perform digital circuit loop-backs
perform equipment loop-backs
perform fault isolation on computer network circuits
coordinate circuit or equipment problems with other technical
controls or communications facilities
perform fault isolation on high speed data circuits
perform audio channel loop-backs
coordinate circuit and system outages with users or
associated facilities
perform BIT error rate test on high speed circuits
analyze causes of digital circuit failures
perform fault isolation on data circuits to outlying buildings

Within this cluster, two job types were identified. One small group of 11 people broke out because they were slightly more involved with the patch and test functions. A second group of 29 people were all assigned to the Air Force Military Personnel Center (AFMPC) and were responsible for communication circuits between AFMPC and personnel computers located at other bases.

V. AUTODIN SWITCHING CENTER PERSONNEL CLUSTER (STG282, N=32). The incumbents in this cluster are working mainly in AUTODIN switching centers. They are primarily responsible for ensuring that AUTODIN switching circuits and associated equipment are operating correctly. Two variations are noted

within this cluster--Primary/AUTODIN Technical Control Services (High Speed Data) Personnel and Digital Control (Primary Technical Control Facility) Personnel. They perform an average of 58 tasks. Common tasks include:

perform digital circuit loop-backs
perform fault isolation on circuits using black digital patch bays
perform equipment loop-backs
patch cryptographic equipment
coordinate circuit and system outages with users or associated facilities
participate in alerts or recalls
perform cryptographic synchronizations
perform audio channel loop-backs
maintain circuit outage reports
prepare technical control communications work order forms

VI. SHIFT SUPERVISORS AND NCOICs INDEPENDENT JOB TYPE (STG308, N=20). These personnel are first-line supervisors and NCOICs of various telecommunications facilities. They are primarily responsible for day-to-day supervision of subordinate personnel. They supervise an average of three subordinates. A majority of their job time (64 percent) is spent on tasks related to three broad duty categories--maintaining telecommunications service, performing administrative functions, and directing and implementing. They perform an average of 65 tasks. Common tasks include:

perform digital circuit loop-backs
counsel trainees on training progress
counsel personnel
direct fault isolation or correction of circuit or system malfunctions
write APR
supervise Apprentice Communications-Computer Systems Control Specialists (AFSC 49330)
patch cryptographic equipment
supervise Communications-Computer Systems Control Specialists (AFSC 49350)
conduct OJT

VII. CRITICOMM CONTROLLERS IJT (STG375, N=5). These personnel perform a unique job involving critical communications systems. A majority of their job time is spent in two broad categories--performing administrative functions and maintaining telecommunications service. Within their job, they are involved with modems, cryptographic equipment, and associated equipment. They perform an average of 71 tasks. Common tasks include:

coordinate circuit and system outages with users or associated facilities
coordinate power changeovers with communications support facilities
patch MODEMs
perform fault isolation on AUTOSEVOCOM
patch multiplexers
patch cryptographic equipment
maintain communications outage reports
patch commercial equipment, lines, or channels
perform time hacks on master station clocks
direct fault isolation or correction of circuit or system malfunctions

VIII. OVERSEAS DEFENSE COMMUNICATIONS SERVICE (DCS) TECHNICAL CONTROLLERS CLUSTER (STG130, N=28). This cluster of respondents is primarily located overseas (86 percent). These incumbents work in DCS technical control facilities and are responsible for ensuring that communications circuits and associated traffic are operating optimally. Many of the tasks they perform involve manual procedures. These incumbents spend 83 percent of their time on tasks related to performing circuit monitoring and analysis, maintaining telecommunications service, and performing administrative functions. Two variations are noted within this cluster--Manual Technical Controllers and Overseas Primary Technical Controllers. The Manual Technical Controllers are more involved with manual procedures than the Overseas Primary Technical Controllers. They perform an average of 46 tasks. Common tasks include:

perform manual idle channel noise tests
perform manual QC on standard test tone levels
perform manual impulse noise tests
perform audio channel loop-backs
coordinate circuit and system outages with users or associated facilities
perform manual envelope delay distortion tests
perform digital circuit loop-backs
perform fault isolation on analog circuits
perform maximum change in audio frequency tests
perform equipment loop-backs
perform manual amplitude vs frequency tests (frequency response test)

IX. DCS AUTOMATED TECHNICAL CONTROL IJT (STG158, N=14). These incumbents work primarily in DCS technical control facilities and are responsible for ensuring that communications circuits and associated traffic are operating effectively. These personnel are similar to those personnel described in the overseas DCS technical controllers group above, with the main distinction being that this group is more involved with automated procedures.

The incumbents spend 86 percent of their job time performing circuit monitoring and analysis, maintaining telecommunications service, and performing administrative functions. They perform an average of 52 tasks. Common tasks include:

coordinate circuit and system outages with users or associated facilities
perform automated quality checks on standard test tone levels
perform automated idle channel noise tests
perform automated impulse noise tests
perform automated envelope delay distortion tests
perform digital circuit loop-backs
perform automated amplitude vs frequency tests (frequency response tests)
perform harmonic distortion tests
perform automated phase jitter tests

X. COMMUNICATIONS SYSTEMS TECHNICAL CONTROL PERSONNEL CLUSTER (STG125, N=541). This large cluster represents the core job of the Communications-Computer Systems Control career ladder. These personnel are primarily responsible for accomplishing the day-to-day telecommunications control functions. They spend 75 percent of their job time on tasks related to performing circuit monitoring and analysis, maintaining telecommunications service, and performing administrative functions. They perform an average of 115 tasks. Common tasks include:

perform audio channel loop-backs
perform fault isolation on analog circuits
perform manual idle channel noise tests
perform maximum change in audio frequency tests
perform manual QC on standard test tone levels
perform manual impulse noise tests
perform continuity checks on patch cords
perform on-call patches
perform manual envelope delay distortion tests
perform digital circuit loop-backs
perform equipment loop-backs
coordinate circuit and system outages with users or associated facilities

This cluster consists of several variations--Technical Control Personnel, Information Systems Personnel, Telecommunications Personnel, System Shift Supervisors, Base Control Test Facilities Personnel, Quality Control NCOs, Wideband/ABNCP Net Controllers, Site Control Personnel, Technical Control Training NCOs, and Wing Circuit NCOs.

XI. CIRCUIT ACTIONS PERSONNEL CLUSTER (STG190, N=84). This cluster of respondents is primarily responsible for directing floor operations at telecommunications facilities and ensuring that communications and associated

equipment remain operational. They spend almost equal amounts of time on administrative and technical-related functions. Overall, 68 percent of their job time is spent on tasks related to three broad duties--performing administrative functions, maintaining telecommunications service, and performing circuit monitoring and analysis. They perform an average of 97 tasks. Common tasks include:

maintain circuit data forms
direct wiring of cross-connections on distribution frames or matrix boards
wire cross-connects on distribution frames
prepare circuit data forms
implement activation or changes of circuits
wire temporary cross-connects on distribution frames
label patch bays or equipment
check continuity of cables or in-house wiring
perform fault isolation on analog circuits
maintain circuit history folders
establish changes in circuits or channels

XII. CONTROL TEST FACILITY CABLE REPAIR PERSONNEL IJT (STG200, N=5). These personnel are primarily responsible for repairing and maintaining cables or cable systems. While they are primarily involved with cables and cable systems, they also perform circuit monitoring and analysis. They spend 60 percent of their job time on tasks related to performing administrative functions, maintaining telecommunications service, and directing and implementing. They perform an average of 47 tasks. Common tasks include:

maintain cable record forms
determine work priorities
plan work assignments
conduct OJT
check continuity of cables or in-house wiring
perform fault isolation on cable systems
prepare circuit data forms
direct fault isolation or correction of circuit or system malfunctions
prepare cable record forms
perform fault isolation on DDN systems and circuits
wire cross-connects on distribution frames

XIII. COMBAT COMMUNICATIONS SYSTEMS PERSONNEL IJT (STG238, N=117). Fifty-eight percent of these personnel are assigned to combat communication groups, with 37 percent assigned to tactical units. These incumbents spend 33 percent of their job time erecting and maintaining tactical and combat communications equipment and facilities, 19 percent maintaining telecommunications service, and 14 percent performing circuit monitoring and analysis. They are primarily responsible for ensuring that communications circuits used by mobile

tactical units are operational. There are four noted variations within this cluster--Tactical Unit Personnel, Combat Communications Systems Personnel, Mobility Personnel, and Combat Shift Workers. They perform an average of 144 tasks. Common tasks include:

operate military vehicles
camouflage mobile sites
check continuity between local technical control and users
pack or unpack equipment
check continuity between local and distant technical controls
perform audio channel loop-backs
prepare mobile vans for transport or storage
fire m-16 weapons
load or unload mobile communications equipment on and off vehicles and pallets
operate environmental control units

XIV. COMMUNICATIONS SYSTEMS CONTROL SUPERVISORY PERSONNEL CLUSTER (STG072, N=247). These respondents are first-line supervisors of various telecommunications facilities. They spend a majority of their job time (55 percent) performing tasks related to supervisory duties (A-D). An additional 22 percent is spent on administrative functions. Although they are generally supervisors, they also perform some technical tasks. Within this cluster, several variations are noted--Communications Systems Shift Leaders, Communications Systems NCOICs, Managers and Branch Chiefs, Tactical Supervisors, OJT Supervisors, and Circuit History Data Supervisors. They perform an average of 104 tasks. Common tasks include:

write APR
counsel personnel
indoctrinate newly assigned personnel
interpret policies, directives, or procedures for subordinates
determine work priorities
assign personnel to duty positions
participate in alerts or recalls
prepare recommendations for awards or decorations
schedule leaves
supervise Communications-Computer Systems Control Specialists (AFSC 49350)

XV. TRAINING NCOs IJT (STG847, N=17). These individuals are primarily responsible for training subordinates at the worksite. They are assigned to locations other than the technical school, and provide hands-on training to ensure that job requirements are correctly met. They spend a majority of their job time (71 percent) on training tasks. They perform an average of 37 tasks and supervise an average of two subordinates. Common tasks include:

counsel personnel
develop training plans
write test questions
score tests
administer tests
evaluate OJT trainees
counsel trainees on training progress
maintain training records, charts, or graphs
determine OJT requirements
evaluate progress of students

XVI. BASE CONTROL TEST FACILITY PERSONNEL IJT (STG169, N=10). These personnel are primarily involved with maintaining and monitoring base control test facilities, which involves fault isolations, analyzing causes of circuit failure, and systems repair. They spend 73 percent of their job time on tasks related to maintaining telecommunications service, performing administrative functions, and performing circuit monitoring and analysis. Only 10 percent are assigned to overseas locations. They perform an average of 38 tasks. Common tasks include:

perform fault isolation on cable systems
perform fault isolation on data circuits to outlying buildings
perform equipment loop-backs
perform fault isolation on high speed data circuits
run data lines to computer terminals

XVII. TRAINING INSTRUCTORS (TECHNICAL SCHOOL) IJT (STG111, N=24). This group of 24 instructors conduct resident course classroom training and are all assigned to Keesler Technical Training Center. Fifty-four percent of these personnel hold DAFSC 49350, and the remaining 46 percent hold DAFSC 49370. They spend 73 percent of their job time on tasks related to three duties--training, performing circuit monitoring and analysis, and maintaining telecommunications service. They perform an average of 34 tasks. Common tasks include:

administer tests
score tests
conduct resident course classroom training
counsel trainees on training progress
evaluate progress of students
counsel personnel
write test questions
adjust line amplifiers
measure group pilot levels
remove or replace signaling units
measure pilots at baseband level
adjust amplitude equalizers

XVIII. MOBILITY/CONTINGENCY PERSONNEL CLUSTER (STG052, N=17). This group consists of personnel who perform driving, quality control, and setup functions, and other routine mobility and contingency-related functions. They spend 55 percent of their job time on tasks related to erecting and maintaining tactical and combat communications equipment and facilities and performing administrative functions. They perform an average of 34 tasks. Common tasks include:

perform safety checks on vehicles
road check vehicles
operate military vehicles
participate in alerts or recalls
camouflage mobile sites
pack or unpack equipment
load or unload mobile communications equipment on and off vehicles and pallets
clean weapons
prepare mobile vans for transport or storage
fire m-16 weapons
prepare personal clothing and equipment for deployment
clean or wax military vehicles

XIX. PERFORMANCE MONITORS AND EVALUATION PERSONNEL CLUSTER (STG037, N=52). These personnel are primarily responsible for monitoring performance of personnel within the Communications-Computer Systems Control career ladder. This cluster consists of several variations--Quality Control Personnel, Analysis and Evaluation Personnel, Systems Managers, Operational/Readiness Controllers, and Trends and Analysis Personnel. They perform an average of 38 tasks and supervise an average of two subordinates. Common tasks include:

type forms, reports, or correspondence
coordinate circuit and system outages with users or associated facilities
maintain circuit outage reports
maintain communications outage reports
process forms, reports, or correspondence using word processors and keyboards
maintain master station log forms
store classified information or materials
maintain trend analysis files
store, update, or print computerized circuit/group outage records

XX. PRIMARY CONTROL CENTER/SATELLITE SYSTEMS PERSONNEL IJT (STG211, N=9). These personnel are primarily responsible for satellite communications systems. They perform technical, as well as some supervisory-related, functions. They spend 48 percent of their job time on tasks related to performing primary control center and defense satellite communications systems functions. They perform an average of 40 tasks. Common tasks include:

perform reboot/restart procedures
create master satellite access schedules
perform primary control center (PCC) access approvals
perform PCC access cancellations
perform PCC access changes
perform PCC access denials
perform PCC access pre-emptions
perform satellite minimize procedures
maintain master satellite access schedules

XXI. COMPUTER OPERATORS/ADMINISTRATIVE TECHNICIANS CLUSTER (STG079, N=38). These incumbents are experienced personnel having an average of 184 months in the military. They perform administrative support function which makes use of computers in the performance of their jobs. There are two variations within this cluster--Zenith 150 Computer Personnel and Zenith 100 Computer Personnel. They spend 74 percent of their job time on tasks related to performing administrative functions, directing and implementing, and organizing and planning. They perform an average of 35 tasks. Common tasks include:

coordinate operational changes to circuits or channels with users or defense communications agency (DCA)
coordinate special communications requirements with users or DCA
conduct briefings
determine work priorities
participate in alerts or recalls
type forms, reports, or correspondence
draft recommendations for system improvements
write staff studies, surveys, or special reports
prepare correspondence
determine requirements for space, personnel, equipment, or supplies
engineer communication circuit systems
coordinate installations with users or associated facilities

XXII. COMMUNICATIONS SYSTEMS ADMINISTRATION MANAGERS IJT (STG133, N=36). This group is comprised of experienced personnel who are performing clerical-related communications systems functions. Sixty-one percent of this group hold DAFSC 49370 or higher. A majority of their job time (53 percent) is spent performing tasks related to administrative functions. They perform an average of 18 tasks such as:

prepare correspondence
type forms, reports, or correspondence
write staff studies, surveys, or special reports
process forms, reports, or correspondence using word processors and keyboards
maintain correspondence files

prepare operational messages
store classified information or materials
or classified material inventories
conduct briefings
destroy classified information or materials
determine work priorities

XXIII. SYSTEMS EVALUATORS/QUALITY ASSURANCE PERSONNEL IJT (STG187, N=13). These personnel are responsible for directing facility quality control programs. They spend 49 percent of their job time on tasks related to inspecting and evaluating. They perform an average of 21 tasks. Common tasks include:

write staff studies, surveys, or special reports
inspect communications facilities
evaluate quality control programs
evaluate inspection reports or procedures
evaluate training methods
evaluate unit emergency or contingency plans
evaluate safety programs
evaluate security programs
perform operational evaluations of mobile units
prepare correspondence
conduct briefings
inspect area security or classified material inventories

Summary

Twelve job clusters and 11 independent job types were identified, indicating the Communications-Computer Systems Control career ladder is somewhat diverse. All of the cluster groups performed tasks associated with the larger career ladder responsibilities, such as circuit monitoring and analysis, maintaining telecommunications service, and administrative and supervisory functions. The 11 independent job type groups performed specialized functions--Shift Supervisors and NCOICs, CRITICOMM Controllers, DCS Automated Technical Controllers, Control Test Facility Cable Repair Personnel, Combat Communication Systems Personnel, Training NCOs, Base Control Test Facility Personnel, Training Instructors (Technical School), Primary Control Center/ Satellite Systems Personnel, Communication Systems Administration Managers, and System Evaluators/Quality Assurance Personnel.

ANALYSIS OF DAFSC GROUPS

In addition to examining the job structure of the Communications-Computer Systems Control specialty (as discussed in the SPECIALTY JOBS section), this report also includes an analysis of tasks performed at each skill level. This information can be used to evaluate whether personnel are utilized in the

manner specified by the Specialty Descriptions (AFR 39-1) and can serve as one basis for considering changes to current utilization policies and training programs.

A comparison of duties and tasks performed between 3- and 5-skill level personnel indicates the jobs they perform are essentially the same; therefore, they are discussed as one group (49330/49350). The distribution of skill-level members across the career ladder specialty jobs is shown in Table 5. To give some indications of how skill-level groups are working within this ladder, the relative time spent on each duty by skill-level groups is presented in Table 6.

As can be seen from the tables, as an individual progresses through the skill levels, slightly more supervisory and administrative responsibilities are assumed. Also, in this progression, there is a slight decline in the amount of time spent performing technical duties as skill levels increase. More detailed descriptions relative to how skill-level groups are working and the differences, if any, between jobs they perform are presented below.

Skill-Level Descriptions

DAFSC 49330/49350. The 3- and 5-skill level personnel (68 percent of the sample) perform an average of 89 tasks. The largest percentage of the 3- and 5-skill level group are working as Communications Systems Technical Control Personnel (45 percent), which is the core job of this career ladder. The remaining personnel are working across a wide variety of jobs ranging from Combat Communications to mobility and contingency functions. A small number are also performing as shift leaders. Most of their work time (79 percent) is spent on tasks related to performing administrative functions, performing circuit monitoring and analysis, and maintaining telecommunications service (see Table 6).

The average time in career field for these members is 40 months, with their average TAFMS being 63 months. Table 7 lists representative tasks performed by these personnel. As mentioned in the career ladder structure discussion, this is a diverse career ladder. Examples of most common tasks performed by these personnel, as presented in Table 7, clearly document the fragmented jobs performed by these personnel. Most tasks pertain to maintaining telecommunication service, performing administrative functions, performing circuit monitoring and analysis, and erecting and maintaining tactical and combat communications equipment and facilities.

DAFSC 49370. Approximately 30 percent (474 members) of this sample hold a 7-skill level. These members are working in most of the identified jobs, with the largest number (32 percent) performing as supervisory personnel (see Table 5). Although they are spending more job time on supervisory-related tasks than the previously described group (38 versus 15 percent), well over half their total job time is still spent on technical functions. These personnel have an average of 171 months in the military, with an average of 130 months in the career field. They perform an average of 81 tasks. Examples of tasks commonly performed by 7-skill level members are presented in Table 8. Tasks

TABLE 5

DAFSC DISTRIBUTION ACROSS SPECIALTY JOBS
(PERCENT RESPONDING)

	DAFSC 49330/50 (N=1088)	DAFSC 49370 (N=474)	DAFSC 49390/00 (N=33)
I. Systems Test and Evaluation Team Personnel Cluster (STG044, N=28)	1%	4%	0
II. Telecommunication Service Systems Analysis Personnel Cluster (STG150, N=11)	1%	*	0
III. Shift Leaders and Supervisors Cluster (STG143, N=34)	3%	*	0
IV. Network Controllers Cluster (STG239, N=40)	3%	1%	0
V. Autodin Switching Center Personnel Cluster (STG282, N=32)	3%	1%	0
VI. Shift Supervisors and NCOICs Independent Job Type (STG308, N=20)	1%	1%	0
VII. CRITICOMM Controllers IJT (STG375, N=5)	*	0	0
VIII. Overseas DCS Technical Controllers Cluster (STG130, N=28)	2%	1*	0
IX. DCS Automated Technical Control IJT (STG158, N=14)	1%	0	0
X. Communications Systems Technical Control Cluster (STG125, N=541)	45%	10%	0
XI. Circuit Actions Personnel Cluster (STG190, N=84)	5%	5%	3%
XII. Control Test Facility Cable Repair Personnel IJT (STG200, N=5)	*	*	0
XIII. Combat Communication Systems Personnel (STG238, N=117)	8%	6%	0
XIV. Communications Systems Control Supervisory Personnel (STG072, N=247)	6%	32%	76%
XV. Training NCOs IJT (STG847, N=17)	1%	1	0
XVI. Base Control Test Facility Personnel IJT (STG169, N=10)	1%	*	0
XVII. Training Instructors (Technical School) IJT (STG111, N=24)	1%	2	0
XVIII. Mobility/Contingency Personnel Cluster (STG052, N=17)	1%	*	0
XIX. Performance Monitors and Evaluation Personnel Cluster (STG037, N=52)	3%	4	6
XX. Primary Control Center/Satellite Systems Personnel IJT (STG211, N=9)	1%	1%	0
XXI. Computer Operators/Administrative Technicians Cluster (STG079, N=38)	1%	6%	3%
XXII. Communication Systems Administration Managers IJT (STG133, N=36)	1%	5%	3%
XXIII. Systems Evaluators/Quality Asssurance Personnel IJT (STG187, N=13)	*	2%	3%
Not Grouped	10%	16%	9%
	98%	98%	100%

* Less than 1 percent
Note: Columns may not add to 100 percent due to rounding

TABLE 6

RELATIVE PERCENT TIME SPENT ON DUTY BY DAFSC GROUPS

DUTIES	DAFSC 49330/50 (N=1,088)	DAFSC 49370 (N=474)	DAFSC 49390/00 (N=33)
A. ORGANIZING AND PLANNING	2	9	21
B. DIRECTING AND IMPLEMENTING	6	13	23
C. INSPECTING AND EVALUATING	2	8	20
D. TRAINING	5	8	6
E. PERFORMING ADMINISTRATIVE FUNCTIONS	23	26	20
F. PERFORMING CIRCUIT MONITORING AND ANALYSIS	22	10	2
G. PERFORMING WIDEBAND SYSTEMS PERFORMANCE MONITORING AND ANALYSIS	5	2	*
H. MAINTAINING TELECOMMUNICATIONS SERVICE	24	12	4
I. ERECTING AND MAINTAINING TACTICAL AND COMBAT COMMUNICATIONS EQUIPMENT AND FACILITIES	7	6	1
J. PERFORMING GENERAL TELECOMMUNICATIONS FUNCTIONS	3	4	2
K. PERFORMING PRIMARY CONTROL CENTER AND DEFENSE SATELLITE COMMUNICATIONS SYSTEMS FUNCTIONS	1	1	*

* Less than 1 percent
NOTE: Columns may not add to 100 percent due to rounding

TABLE 7

EXAMPLES OF TASKS PERFORMED BY
DAFSC 49330/50 PERSONNEL
(N=1,088)

TASKS		PERCENT MEMBERS PERFORMING
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	71
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	71
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	69
E190	PARTICIPATE IN ALERTS OR RECALLS	68
H429	PERFORM EQUIPMENT LOOP-BACKS	68
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	67
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	63
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	60
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	60
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	59
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	59
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	58
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	55
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	55
H453	PERFORM ON-CALL PATCHES	55
F257	ADJUST LINE AMPLIFIERS	54
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	53
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	52
F317	PERFORM MANUAL IMPULSE NOISE TESTS	51
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	50
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	50

TABLE 8

EXAMPLES OF TASKS PERFORMED BY
DAFSC 49370 PERSONNEL
(N=474)

TASKS		PERCENT MEMBERS PERFORMING
E190	PARTICIPATE IN ALERTS OR RECALLS	63
A4	DETERMINE WORK PRIORITIES	60
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	56
B31	COUNSEL PERSONNEL	57
C78	WRITE APR	55
B25	CONDUCT BRIEFINGS	53
E207	PREPARE CORRESPONDENCE	52
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	52
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	51
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	48
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	47
A7	DEVELOP WORK PROCEDURES	45
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	43
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALIST (AFSC 49350)	43
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	43
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	42
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	42
B32	DIRECT CIRCUIT OR SYSTEM CHECKS	42
D85	CONDUCT OJT	42
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	41
A24	SCHEDULE LEAVES	41
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	40
A21	PLAN WORK ASSIGNMENTS	40
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	40
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	40
E244	STORE CLASSIFIED INFORMATION OR MATERIALS	38
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	38
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	38
H429	PERFORM EQUIPMENT LOOP-BACKS	38
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	38
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	36
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	36
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	36

which best distinguish the 7-skill level group from the previously described 3-/5-skill level group are presented in Table 9. Those tasks are primarily related to supervision.

DAFSC 49390/CEM 49300. Due to the similarity of tasks performed, percent time spent on duties, and level of tasks performed, these two skill levels are difficult to distinguish and are, therefore, described together. These highly skilled personnel comprise approximately 2 percent of the survey sample. Respondents at these two skill levels spend more of their time performing management, supervisory, and staff-level functions than the other skill-level groups previously discussed. They work primarily within jobs identified as management, supervision, and administrative. Eighty-four percent of their job time is spent on management tasks related to four broad duties--organizing and planning, directing and implementing, inspecting and evaluating, and performing administrative tasks. The main differences between these highly experienced personnel and those previously discussed are in the level of performance, as these members are high-level managers and supervisors and are often supervisors of 7-skill level personnel. Table 10 provides those tasks commonly performed by these AFSC 49390 and CEM 49300 personnel. Table 11 provides those tasks which distinguish between these personnel and 7-skill level personnel. The main difference is the increased management responsibilities common at the 9-skill and CEM Code levels.

Summary

Career ladder progression through the AFSC 493X0 skill levels is well defined, with 3- and 5-skill level personnel spending the majority of their job time performing general Communications-Computer Systems Control duties. The 7-skill level personnel spend more time doing supervisory functions than the 3- and 5-skill group; however, even at the 7-skill level, time spent on technical tasks is still high. DAFSC 49390 and CEM 49300 personnel spend 84 percent of their job time on supervisory, management, and administrative tasks.

ANALYSIS OF AFR 39-1 SPECIALTY DESCRIPTIONS

Occupational survey data for each of the AFSC 493X0 skill levels were compared to the AFR 39-1 Specialty Descriptions for the Communication-Computer Systems Control career ladder (DAFSCs 49330/49350/49370/49390 and CEM Code 49300), dated 1 February 1988. These descriptions are intended to give a broad overview of the duties and tasks performed by each skill level of the career ladder.

Based on the preceding DAFSC analysis, the 3-/5-skill level description appears complete and accurately reflects the broad range of duties and responsibilities of Communications-Computer Systems Control personnel. The 7-skill level, 9-skill level, and CEM Code descriptions also appear complete and accurate. The 7-skill level description clearly indicates involvement

TABLE 9

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 49330/50 AND 49370 PERSONNEL

TASK		DAFSC 49370 (N=1,088)	DAFSC 49330/50 (N=474)	DIFFERENCE
E207	PREPARE CORRESPONDENCE	53	14	39
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT OR SUPPLIES	47	11	36
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	43	10	33
B25	CONDUCT BRIEFINGS	53	22	31
A24	SCHEDULE LEAVES	42	11	31
C78	WRITE APR	56	26	30
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	51	22	29
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	38	9	29
A4	DETERMINE WORK PRIORITIES	61	32	29
C65	EVALUATE INSPECTION REPORTS OR PROCEDURES	34	5	29
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	38	72	-34
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	36	67	-31
H429	PERFORM EQUIPMENT LOOP-BACKS	38	69	-31
H453	PERFORM ON-CALL PATCHES	26	56	-30
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	31	60	-29
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	40	69	-29
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	18	47	-29
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	43	71	-28
F257	ADJUST LINE AMPLIFIERS	27	54	-27

TABLE 10

EXAMPLES OF TASKS PERFORMED BY
DAFSC 49390/49300 PERSONNEL
(N=33)

TASKS		PERCENT MEMBERS PERFORMING
A4	DETERMINE WORK PRIORITIES	81
B25	CONDUCT BRIEFINGS	81
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	78
C78	WRITE APR	78
B31	COUNSEL PERSONNEL	78
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	75
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	75
B47	INITIATE PERSONNEL ACTION REQUESTS	75
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	75
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	72
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	72
C80	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	69
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	69
C65	EVALUATE INSPECTION REPORTS OR PROCEDURES	66
A21	PLAN WORK ASSIGNMENTS	66
C66	EVALUATE JOB DESCRIPTIONS	66
E190	PARTICIPATE IN ALERTS OR RECALLS	66
E207	PREPARE CORRESPONDENCE	63
C73	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	63
A10	DRAFT RECOMMENDATIONS FOR SYSTEM IMPROVEMENTS	63
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	63
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	63
A7	DEVELOP WORK PROCEDURES	60
C60	ANALYZE WORKLOAD REQUIREMENTS	60
C64	EVALUATE INDIVIDUALS FOR PROMOTION	60
A24	SCHEDULE LEAVES	60
B50	PREPARE OPERATIONAL MESSAGES	57
A17	PLAN LAYOUT OF FACILITIES	57
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	57
C72	EVALUATE USE OF WORKSPACE, EQUIPMENT, OR SUPPLIES	57
B26	CONDUCT STAFF MEETINGS	57
A9	DRAFT BUDGET REQUIREMENTS	54
C75	INSPECT COMMUNICATIONS FACILITIES	51
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	51
C70	EVALUATE SUGGESTIONS	51
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	48
B52	PREPARE REQUISITIONS FOR EQUIPMENT OR SUPPLIES	45
C67	EVALUATE QUALITY CONTROL PROGRAMS	45

TABLE 11

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 49370 AND 49390/00

TASK		DAFSC 49370	DAFSC 49390/00	DIFFERENCE
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	37	3	34
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	36	3	33
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	38	6	32
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	38	6	32
H429	PERFORM EQUIPMENT LOOP-BACKS	38	6	32
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	40	9	31
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	32	3	29
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	31	3	28
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	36	9	27
F317	PERFORM MANUAL IMPULSE NOISE TESTS	30	3	27
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	30	3	27
E227	PREPARE MASTER STATION LOG FORMS	27	0	27
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	27	0	27
B47	INITIATE PERSONNEL ACTION REQUESTS	27	76	-49
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	29	73	-44
C80	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	26	70	-44
C66	EVALUATE JOB DESCRIPTIONS	23	67	-44
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	22	64	-42
B26	CONDUCT STAFF MEETINGS	19	58	-39
A17	PLAN LAYOUT OF FACILITIES	19	58	-39
A5	DEVELOP ORGANIZATIONAL CHARTS	20	58	-38
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	33	70	-37
A9	DRAFT BUDGET REQUIREMENTS	19	55	-36
A10	DRAFT RECOMMENDATIONS FOR SYSTEM IMPROVEMENTS	30	63	-33

with not only the supervisory responsibilities, but also the technical aspects of Communications-Computer Systems Control duties as well, while the 9-skill level and CEM code description accurately covers the management and supervisory functions performed by these personnel.

TRAINING ANALYSIS

Occupational survey data are used to assist in the planning, development, reviewing, and evaluation of various training programs and documents, such as the STS and POI. These training efforts are relevant to personnel working in their first assignment. Some factors which may be used in the analysis include percent of first enlistment (1-48 months TAFMS) personnel performing tasks, along with Training Emphasis (TE) and Task Difficulty (TD) ratings (as explained in the Task Factor Administration Section). These factors were used in reviewing the AFSC 493X0 STS and POI for Course 3ABR49330, based on the matching of inventory tasks to the appropriate sections of the POI and STS by experienced technical school personnel from Keesler Technical Training Center. A complete computer list displaying percent members performing, TE, and TD ratings for each task, along with STS and POI matchings, has been forwarded to the technical school for use in further reviews of training documents. A summary of that information is presented below.

Training Emphasis (TE)

Training emphasis (TE) for each task in the inventory was assessed through ratings by 56 experienced Communication-Computers Systems Control Personnel. Data were processed to produce ordered listings of tasks in terms of recommended emphasis in training for first-term enlisted personnel. The average rating for all tasks included in the job inventory is 2.29, with a standard deviation of 2.17. Tasks receiving ratings of 4.46 or higher may be considered to have relatively high training emphasis. For a more complete description of these ratings, see the section on Task Factor Administration in the INTRODUCTION to this report. Examples of tasks rated highest in training emphasis are listed in Table 12. As can be seen, these tasks are related to performing manual or automated tests during circuit monitoring and analysis.

Task Difficulty (TD)

The relative difficulty of each task in the inventory was assessed through ratings of 57 experienced 493X0 NCOs. These ratings were processed to produce an ordered listing of all tasks in terms of their relative difficulty. Ratings were standardized to have an average of 5.0, with a standard deviation equal to 1.0. Tasks rated the most difficult by AFSC 493X0 personnel are listed in Table 13, and are related to a variety of Communications-Computer Systems Control functions. Many of these tasks seem to be high-level functions involving supervisory and managerial duties such as directing and implementing, training, inspecting and evaluating, and organizing and

TABLE 12

EXAMPLES OF TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS		TNG EMP	1ST JOB	1ST ENL	TSK DIF
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	6.73	74	73	6.48
F311	PERFORM MANUAL BIT ERROR RATE TESTS ON DIGITAL CIRCUITS AND EQUIPMENT	6.38	36	41	5.66
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	6.38	63	63	4.08
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	6.30	61	62	3.70
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	6.29	64	65	7.15
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	6.25	55	56	7.01
F317	PERFORM MANUAL IMPULSE NOISE TESTS	6.23	56	57	4.21
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	6.18	65	65	6.88
F319	PERFORM MANUAL PHASE JITTER TESTS	6.16	42	44	5.10
F323	PERFORM MANUAL TERMINAL IMPEDANCE TESTS	6.11	44	45	5.61
F310	PERFORM MANUAL AMPLITUDE VS FREQUENCY TESTS (FREQUENCY RESPONSE TEST)	6.09	57	56	5.37
F315	PERFORM MANUAL HITS/DROPOUTS TESTS	6.09	43	45	4.82
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	6.02	57	58	6.59
F318	PERFORM MANUAL NONLINEAR DISTORTION TESTS	5.98	41	43	5.20
F257	ADJUST LINE AMPLIFIERS	5.93	65	62	4.24
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	5.93	58	60	4.17
F252	ADJUST AMPLITUDE EQUALIZERS	5.91	51	49	6.26
F253	ADJUST DELAY EQUALIZERS	5.91	47	45	7.02
G372	PERFORM BIT ERROR RATE TEST ON HIGH SPEED DATA CIRCUITS	5.89	39	41	5.15
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	5.86	70	70	5.30
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	5.82	51	56	5.70
F322	PERFORM MANUAL SINGLE TONE INTERFERENCE TESTS (CROSSTALK TEST)	5.80	33	36	4.94

TABLE 12 (CONTINUED)

EXAMPLES OF TASKS RATED HIGHEST IN TRAINING EMPHASIS

TASKS		TNG EMP	1ST JOB	1ST ENL	TSK DIF
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	5.73	52	52	4.37
G373	PERFORM BIT ERROR RATE TESTS ON TIME DIVISION MULTIPLEXING (TDM) EQUIPMENT	5.73	26	30	5.31
H447	PERFORM FAULT ISOLATION ON PULSE CODE MODULATION (PCM) SYSTEMS	5.68	29	30	6.55
F314	PERFORM MANUAL HARMONIC DISTORTION TESTS	5.66	38	38	5.36
H434	PERFORM FAULT ISOLATION ON CABLE SYSTEMS	5.66	36	39	5.72
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	5.63	81	77	5.18
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	5.57	52	50	4.06
G375	PERFORM C-NOTCHED NOISE MEASUREMENTS ON TIME DIVISION MULTIPLEXING/PULSE CODE MODULATION (TDM/PCM) SYSTEMS	5.57	38	39	4.62
F278	PERFORM AUTOMATED IMPULSE NOISE TESTS	5.55	51	48	4.11
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	5.55	42	43	6.47
F274	PERFORM AUTOMATED ENVELOPE DELAY DISTORTION TESTS	5.54	47	45	5.04
F337	PERFORM OUT-OF-SERVICE QC ON SIGNALING UNITS	5.54	29	28	5.40
F273	PERFORM AUTOMATED BIT ERROR RATE TESTS ON DIGITAL CIRCUITS	5.52	38	40	4.75

TABLE 13

EXAMPLES OF TASKS RATED HIGHEST IN TASK DIFFICULTY

TASKS		TSK DIF	1ST ENL	5-LEV	7-LEV	TNG EMP
D92	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	8.82	1	2	4	.23
A11	ENGINEER COMMUNICATION CIRCUIT SYSTEMS	8.19	3	6	24	1.09
A9	DRAFT BUDGET REQUIREMENTS	8.00	1	4	19	.04
A16	FORMULATE CIRCUIT CUTOVER PLANS	7.80	5	9	18	.79
D93	DEVELOP TRAINING PLANS	7.77	12	24	34	1.88
C80	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	7.61	2	6	26	.11
A17	PLAN LAYOUT OF FACILITIES	7.52	4	6	19	.18
B58	SUPERVISE FOREIGN NATIONALS	7.42	1	2	4	.29
A10	DRAFT RECOMMENDATIONS FOR SYSTEM IMPROVEMENTS	7.39	3	7	30	.54
C63	EVALUATE BUDGET REQUIREMENTS	7.34	1	3	18	.04
F263	CONDUCT ACCEPTANCE TESTING OF NEW SYSTEMS, CIRCUITS, OR EQUIPMENT	7.21	50	47	31	5.07
F264	FAULT ISOLATE ANTENNA MALFUNCTIONS	7.16	7	7	4	2.52
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	7.15	65	58	37	6.29
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	7.13	5	7	22	.04
D86	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	7.03	1	4	5	.71
D87	CONDUCT TRAINING CONFERENCES	7.03	2	4	4	.14
F253	ADJUST DELAY EQUALIZERS	7.02	45	38	19	5.91
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	7.01	56	48	29	6.25
C79	WRITE CIVILIAN PERFORMANCE RATINGS	6.99	0	1	1	.00
A12	ESTABLISH FACILITY PROFICIENCY RATING PROGRAMS	6.98	2	5	12	.05
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	6.97	43	40	27	3.95
D91	DEVELOP JOB PROFICIENCY GUIDES (JPG)	6.94	2	10	24	.95
H433	PERFORM FAULT ISOLATION ON AUTOSEVOCOM	6.93	25	21	13	4.61
I517	ERECT OR DISMANTLE AN/TSQ 92 BUBBLES	6.93	0	0	0	.23
I514	DIRECT TACTICAL SITE COMMUNICATIONS SET UP	6.92	1	2	6	.59
C77	PERFORM OPERATIONAL EVALUATIONS OF MOBILE UNITS	6.91	0	1	8	.02
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	6.88	65	60	38	6.18
C78	WRITE APR	6.82	3	31	56	2.21
D110	WRITE TEST QUESTIONS	6.82	8	15	25	.98
H400	INSTALL CIRCUITS ON OUTLYING BUILDINGS	6.79	4	6	8	1.34
C71	EVALUATE UNIT EMERGENCY OR CONTINGENCY PLANS	6.79	1	4	21	.43

planning. A few telecommunications systems functions and mobility and contingency functions are also included. Most of the tasks listed are performed by very few first-job and first-enlistment personnel.

First-Enlistment Personnel

In addition to the analysis of tasks and jobs across skill-level groups, it is also important to analyze jobs and tasks as they relate to experience in the career ladder. First-enlistment personnel are of particular interest in terms of training implications. The distribution of first-enlistment personnel across jobs is displayed in Figure 2.

As illustrated in Figure 2, first-enlistment personnel participate in a wide range of activities related to 493X0 functions and are members of all major job clusters. Seventy-six percent of their job time is spent performing tasks related to three broad functions--performing circuit monitoring and analysis (27 percent), maintaining telecommunications service (26 percent), and performing administrative functions (23 percent). Since the first-enlistment group is the target population for initial skill training, determining the tasks they perform is most important. Table 14 provides tasks commonly performed by airman within their first enlistment (1-48 months TAFMS). Test equipment and equipment used and operated by these personnel are also important factors in determining tasks performed and training needs. Tables 14A and 14B list most commonly used and operated test equipment and equipment, respectively. Common tasks include: performing audio channel loop-backs, performing on-call patches, analyzing causes of digital circuit failures, adjusting and lining amplifiers, and performing continuity checks on patch cords.

Specialty Training Standard (STS)

During the course of this analysis, technical school personnel from Keesler Air Force Base matched inventory tasks to the current STS. Utilizing the results of the matched data, a review of STS 493X0, dated June 1988, was conducted.

Overall, many areas of the STS are well supported by survey data. There are, however, quite a few areas on the STS which, on the surface, do not appear to be supported due to less than 20 percent members of the criterion groups (first-term, 5-, and 7-skill levels) performing matched tasks. Closer examination of these nonsupported areas reveals that several areas are indeed jobs being performed by personnel in the 493X0 career ladder (for example, those dealing with the Defense Communications Agency (DCA), establishing quality control test schedules, and maintaining facility and link data). Low percent members performing matched tasks, in this case, may be more a function of the diversity of jobs within the career ladder rather than a lack of support. Therefore, these areas may most likely be appropriate for inclusion in the STS.

JOB GROUP DISTRIBUTION FOR FIRST ENLISTMENT 493X0 AIRMEN
(N=497)

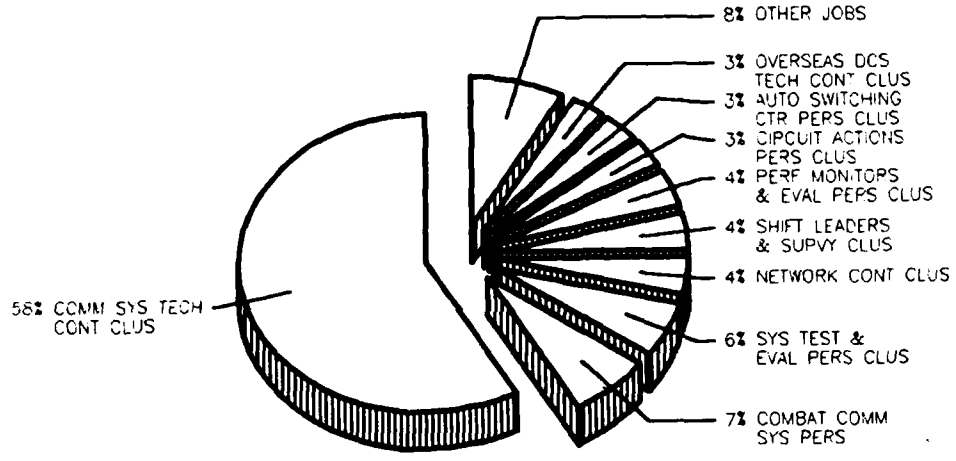

FIGURE 2

TABLE 14

EXAMPLES OF TASKS PERFORMED BY
FIRST-ENLISTMENT (1-48 MONTHS TAFMS) PERSONNEL
(N=497)

TASKS		PERCENT MEMBERS PERFORMING
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	78
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	76
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	75
H429	PERFORM EQUIPMENT LOOP-BACKS	74
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	73
E190	PARTICIPATE IN ALERTS OR RECALLS	70
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	69
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	66
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	65
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	64
H453	PERFORM ON-CALL PATCHES	64
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	63
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	61
F257	ADJUST LINE AMPLIFIERS	61
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	60
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	59
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	57
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	57
F317	PERFORM MANUAL IMPULSE NOISE TESTS	56
F310	PERFORM MANUAL AMPLITUDE VS FREQUENCY TESTS (FREQUENCY RESPONSE TEST)	56
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	55
H396	DIRECT ALTERNATE ROUTING OF CIRCUITS	55
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	55

TABLE 14 (CONTINUED)

EXAMPLES OF TASKS PERFORMED BY
FIRST-ENLISTMENT (1-48 MONTHS TAFMS) PERSONNEL
(N=497)

TASKS		PERCENT MEMBERS PERFORMING
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	53
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	52
E200	PREPARE CIRCUIT OUTAGE REPORTS	51
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	50
H288	PERFORM IN-SERVICE QC ON COMPOSITE SIGNAL TRANSMISSION LEVELS	50
H420	PATCH MODEMS	50
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	49
F263	CONDUCT ACCEPTANCE TESTING OF NEW SYSTEMS, CIRCUITS, OR EQUIPMENT	49
F252	ADJUST AMPLITUDE EQUALIZERS	49
E227	PREPARE MASTER STATION LOG FORMS	48
F281	PERFORM AUTOMATED QUALITY CHECKS ON STANDARD TEST TONE LEVELS	47
E239	PREPARE TECHNICAL CONTROL COMMUNICATIONS WORK ORDER FORMS	47

TABLE 14A

TEST EQUIPMENT USED BY 50 PERCENT OR MORE FIRST-ENLISTMENT PERSONNEL (PERCENT MEMBERS RESPONDING)

	PERCENT MEMBERS RESPONDING
Attenuators	58
Audio Frequency Signal Generators	76
Bit error Rate Test Sets	69
Built in test equipment	52
Decibel (dB) Meters	82
Digital Analyzers	57
Digital Distortion Analyzers	73
Digital Pattern Generators	68
Electronic Voltmeters	52
Envelope Delay Measuring Sets	76
Frequency Counters	69
Frequency Selective Voltmeters	69
Heikimen Test Systems (Manual)	64
Impulse Noise Counters	78
Multimeters	71
Noise Level Measuring Sets	66
Ohmmeters	51
Oscilloscopes	79
Phase Jitter Measuring Sets	72
Speakers	77
Teletypewriters	76
Test Pattern Generators	66

TABLE 14B

EQUIPMENT USED BY 50 PERCENT OR MORE
FIRST-ENLISTMENT PERSONNEL
(PERCENT MEMBERS RESPONDING)

	PERCENT MEMBERS PERFORMING
Alarm Systems	62
Amplitude and Delay Equalizers	62
Analog to Digital Converters	62
Black Digital Patch Bays	62
Circuit Conditioning Equipment	74
Circuit Patch Bays	85
Computer Printers (Mard Copy Printes)	51
Computer Terminals	51
Digital Data Modems	56
Distribution Frames	75
Pads and Amplifers	74
Power Supplies	60
Signaling Equipment	50

There are, however, several subelements under major headings of the STS which need to be reviewed for appropriateness. These involve STS paragraph 7(a), Publications; and paragraphs 16f(1) establish quality control test schedules, 16f(7) maintaining facility and link data, 17c(17) singing point, 17c(18) echo return loss, (17e(7) digital level, 17i use automated test equipment, 18c(18) regenerative repeaters, and 18c(13) line isolation units (LIUs) (see Table 15). A full listing of all STS elements having less than 20 percent members performing matched tasks is presented in Appendix B.

In addition to reviewing those STS paragraphs which are not supported, training development personnel should also review tasks not referenced to the STS but which have more than 20 percent members performing and relatively high TE or TD ratings (see Table 16). A majority of these nonreferenced tasks are related to performing administrative functions and maintaining telecommunications service. All nonreferenced tasks should be reviewed by training managers and a decision made as to whether or not they should be covered by this STS.

Plan of Instruction (POI)

This 18.2-week Communications-Computer Systems Control Course, 3ABR49330, covers the various aspects of the Communications-Computer Systems Control career ladder, to include electronic principles--DC, AC, computers, soldering/desoldering, communications systems, multiplexing and transmission media, patching logic, fault isolation/technical control operations, systems control/circuit test, circuit conditioning, and systems impairments/assessment. The current POI for Course 3ABR49330 (dated June 1988) was examined using tasks matched by personnel from Keesler Technical Training Center to criterion objectives (CO), task difficulty ratings, training emphasis ratings, and percent of first-enlistment personnel performing information. The course was reviewed for appropriateness of instruction based on the jobs and tasks performed by survey respondents. The complete results of the matching of tasks to POI objectives are presented in a separate computer printout (PRTMOD) within the training extract.

Overall, the basic course is well supported by survey data. Training is provided on all major jobs being performed in the field. However, within several blocks of instruction, there were behavioral objectives which were not supported by the data. Most of these unsupported objectives are found in V 1d - Describe the steps taken in intrusioning, VII 1d - Identify signal flow, IX 2a - Describe procedures used for request for service, IX 2c - Describe procedures required for acceptance of telecommunications service order, XI 2a - Identify characteristics associated with digital impairments, XI 2c - Describe the procedures required for acceptance of telecommunications service orders, XI 2g - describe procedures for the reconfiguration of TDM equipment, and XI 2h - Describe procedures used to change configurations of interface terminals. Examples of unsupported objectives are presented in Table 17. A complete listing of all unsupported objectives can be found in Appendix C.

TABLE 15

EXAMPLE OF STS ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS ELEMENTS	TNG EMP	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL	TSK DIF
7. PUBLICATIONS						
A14 ESTABLISH PUBLICATION LIBRARIES	1.18	4	7	10	19	4.97
7a DEFENSE COMMUNICATIONS AGENCY (DCA) - B -						
E130 MAINTAIN CIRCUIT TRUNK DIRECTIVES	1.91	4	3	3	7	4.24
16f. SYSTEMS MANAGEMENT						
16f(1) ESTABLISH QUALITY CONTROL TEST SCHEDULES - a b						
A18 PLAN QUALITY CONTROL PROGRAMS	1.45	5	6	12	12	6.23
B38 DIRECT QUALITY CONTROL PROGRAMS	1.63	6	8	14	19	5.41
B45 IMPLEMENT TELECOMMUNICATIONS FACILITIES TESTING PROGRAMS	1.09	5	4	8	12	5.58
16f(7) MAINTAIN FACILITY AND LINK DATA - - -						
E133 MAINTAIN COMMUNICATIONS FACILITIES LINK DATA REPORTS	2.41	6	6	8	12	5.08
E159 MAINTAIN LINK PERFORMANCE REPORTS	2.30	9	8	8	6	3.99
E145 MAINTAIN DCS DATA BASES	1.84	4	4	6	14	5.08
17c(27) SINGING POINT a c -						
F321 PERFORMING MANUAL SINGING POINT TESTS	4.25	5	5	4	5	5.09

TABLE 15 (CONTINUED)

EXAMPLE OF STS ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

STS ELEMENTS		TNG EMP	PERCENT MEMBERS PERFORMING 1ST JOB	1ST ENL	5-LVL	7-LVL	TSK DIF
17c(18) ECHO RETURN LOSS	a c -						
F312 PERFORM MANUAL ECHO RETURN LOSS TESTS		5.25	16	14	9	9	5.70
17e(7) DIGITAL LEVEL	a c -						
G385 PERFORM VOLTAGE MEASUREMENTS ON TDM/PCM SYSTEMS		4.07	9	8	6	4	4.82
17i USE AUTOMATED TEST EQUIPMENT	2b c -						
F285 PERFORM CIRCUIT PERFORMANCE MONITORING SYSTEMS SELF-TESTS USING PROTOCOLS		4.02	8	9	9	3	5.76
H410 OPERATE COMPUTER DIAGNOSTIC EQUIPMENT, SUCH AS DATA SCOPES ADN PROTOCOL		3.57	10	15	16	13	6.41
18c(13) LINE ISOLATION UNITS (LIUs)	a c -						
F258 ADJUST LINE ISOLATION RELAYS (LIR) OR BATTERY ISOLATION RELAYS (BIR)		5.14	11	4	4	4	5.05

TABLE 16

EXAMPLES OF TASKS NOT REFERENCED TO
STS 493X0

TASKS NOT REFERENCED		TNG EMP	1ST JOB	1ST ENL	493 50	493 70	TSK DIF
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	5.32	81	79	70	38	3.18
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	5.25	78	75	65	36	3.49
H429	PERFORM EQUIPMENT LOOP-BACKS	5.50	76	74	68	38	3.52
E190	PARTICIPATE IN ALERTS OR RECALLS	2.59	69	70	69	64	3.38
E212	PREPARE EQUIPMENT OUTAGE REPORTS	3.21	37	35	29	14	4.78
E217	PREPARE IN-SERVICE OR OUT-OF-SERVICE QUALITY CONTROL REPORTS	3.34	35	33	27	10	4.97
H401	LOAD (REKEY) CRYPTOGRAPHIC MATERIAL	2.43	29	33	32	19	4.50
H425	PERFORM CONTINUITY CHECKS ON CROSS-CONNECT CORDS	4.16	34	33	28	17	3.26
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	3.63	27	31	27	16	4.13
H455	PERFORM OPERATOR MAINTENANCE ON TELETYPEWRITERS, SUCH AS CHANGING RIBBONS OR REPLACING PAPER	3.32	38	40	37	25	3.12
H411	OPERATE CRYPTOGRAPHIC EQUIPMENT	2.61	18	24	23	13	4.76
E114	COORDINATE REQUESTS FOR MAINTENANCE ASSISTANCE WITH OFFICE OF PRIMARY RESPONSIBILITIES (OPR)	2.13	26	25	23	22	5.17

TABLE 17

EXAMPLES OF POI ELEMENTS REFLECTING LOW
PERCENT MEMBERS PERFORMING
(LESS THAN 30 PERCENT PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	TSK DIF
V 1d.	Describe the steps to be taken in reporting of meaconing, intrusion, jamming, and interference (MIJI). STS: 2c(4) Meas: W (1.5)					
E162	Maintain meaconing, intrusion, jamming, and interference (MIJI) reports	2.30	7	6	7	4.91
B43	Implement security programs	1.14	2	1	2	5.04
VII 1d.	Identify signal flow connectivity through the digital patchbays. STS: 16e(6), 18c(13) Meas: W (2.5)					
F258	Adjust line isolation relays (LIR) or battery isolation relays (BIR)	5.14	11	4	4	5.05
IX 2a.	Describe procedures used for Request for Service (RFS). STS: 16f(6)(a)1 Meas: W (.5)					
A18	Plan quality control programs	1.45	2	5	6	6.23
IX 2c.	Describe the procedures required for acceptance of Telecommunications Service Order (TSO). STS: 16f(6)(a)3 Meas: W (3.5)					
B41	Implement changes to telecommunications systems	.82	2	5	7	6.27

TABLE 17 (CONTINUED)

EXAMPLES OF POI ELEMENTS REFLECTING LOW
PERCENT MEMBERS PERFORMING
(LESS THAN 30 PERCENT PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	TSK DIF
XI 2a.	Identify characteristics associated with digital impairments. STS: 9b(1), 9e(1), 9e(2), 17e(2), 17e(3), 17e(7), 18c(5) Meas: W (5)					
G379	Perform nonlinear distortion measurements on TDM/PCM systems	4.54	11	2	18	5.45
G376	Perform compression-expansion linearity tests	3.91	7	4	5	5.36
XI 2c.	Describe the procedures required for acceptance of Telecommunications Service Order (TSO). STS: 16f(6)(a)3 Meas: W (5)					
B41	Implement changes to telecommunications systems	.82	2	5	7	6.27
XI 2g.	Describe procedures for the reconfiguration of TDM equipment. STS: 10d, 10g(10)(a), 16g(10)(b), 16e(16) Meas: PC (3)					
H389	Configure modems	3.14	7	14	20	5.84
XI 2h.	Describe procedures used to change configurations of interface terminals. STS: 10g(10)(a), 10g(10)(b), 16e(15) Meas: W (3)					
H399	Implement telecommunications systems contingency plans	3.50	7	20	24	5.96

In addition to the unsupported objectives, several tasks not being trained in the basic course which have more than 30 percent of first-enlistment personnel performing and high TE or TD ratings. Examples of those tasks are presented in Table 18. Training personnel are encouraged to review those tasks not referenced to POI 493X0 to determined whether it is most appropriate to cover those tasks in the basic course or in some other form of training.

ANALYSIS OF CONUS VERSUS OVERSEAS GROUPS

A comparison was made between the tasks performed and the background data for the DAFSC 49350 personnel who were assigned within the CONUS versus those who were assigned to overseas locations. Overall, the jobs performed by the two groups are very similar with respect to the tasks performed and the time spent on those tasks. However, the job of the overseas respondents seem to be of a more technical control nature, due primarily to the fact that a number of the technical control functions are being performed by commercial companies in the CONUS.

A small number of task differences were noted between CONUS and overseas incumbents. For example, a larger number of overseas personnel reported spending time on such tasks as performing audio channel loop-back, checking continuity of cables or in-house wiring, and directing alternate routing of circuits. In addition, overseas personnel make wider use of DCS Communications Control Systems Facilities than CONUS personnel. Table 19 provides a list of those tasks which best differentiate between the CONUS and overseas incumbents.

A comparison of the background data reveals that a slightly larger percentage of CONUS personnel were in their first enlistment (32 percent versus 27 percent), while the average months in the career field are identical (48 months). Overseas respondents, however, reported performing a greater average number of tasks than those in the CONUS (103 versus 78).

Overall, only minor differences were identified between the role of CONUS and overseas personnel (see Table 20). The most noted differences are in the average number of tasks performed and the tasks which result due to lack of civilian contractors overseas.

JOB SATISFACTION

To provide functional managers within the AFSC 493X0 career ladder with a better understanding of factors which may affect the job performance of AFSC 493X0 airmen, an analysis of job satisfaction data was conducted. These data were gathered through the use of four inventory questions covering job interest, perceived utilization of talents and training, and reenlistment intentions.

TABLE 18

EXAMPLES OF TASKS NOT REFERENCED TO POI

TASKS		TNG EMP	1ST JOB	1ST ENL	TSK DIF
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	6.18	65	65	6.88
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	6.29	64	65	7.15
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	4.48	46	50	4.76
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	5.32	81	79	3.18
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	5.25	78	75	3.49
H429	PERFORM EQUIPMENT LOOP-BACKS	5.50	76	74	3.52
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	3.14	37	39	3.84
E128	MAINTAIN CIRCUIT OUTAGE REPORTS	4.11	41	39	4.52
E161	MAINTAIN MASTER STATION LOG FORMS	3.84	41	39	3.92
E212	PREPARE EQUIPMENT OUTAGE REPORTS	3.21	37	35	4.78
E217	PREPARE IN-SERVICE OR OUT-OF-SERVICE QUALITY CONTROL REPORTS	3.34	35	33	4.97
H401	LOAD (REKEY) CRYPTOGRAPHIC MATERIAL	2.43	29	33	4.50
H425	PERFORM CONTINUITY CHECKS ON CROSS-CONNECT CORDS	4.16	34	33	3.26
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	3.63	27	31	4.13
H455	PERFORM OPERATOR MAINTENANCE ON TELETYPEWRITERS, SUCH AS CHANGING RIBBONS OR REPLACING PAPER	3.32	38	40	3.12
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	3.95	39	43	6.97
J600	LABEL PATCH BAYS OR EQUIPMENT	2.70	33	35	3.76
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	4.48	66	66	2.83
F276	PERFORM AUTOMATED HITS/DROPOUTS TESTS	5.34	38	38	4.03
F315	PERFORM MANUAL HITS/DROPOUTS TESTS	6.09	43	45	4.82
F331	PERFORM OUT-OF-SERVICE QC ON DC CIRCUITS	5.46	37	32	4.52
F336	PERFORM OUT-OF-SERVICE QC ON LINE AMPLIFIERS	5.07	30	30	4.20
F340	PERFORM OUT-OF-SERVICE QC ON TELETYPEWRITERS	4.68	30	30	4.21
F346	PERFORM QC ON TELETYPEWRITER PRINTERS	4.21	33	31	4.18
H434	PERFORM FAULT ISOLATION ON CABLE SYSTEMS	5.66	36	39	5.72
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	5.55	82	43	6.47
H447	PERFORM FAULT ISOLATION ON PULSE CODE MODULATION (PCM) SYSTEMS	5.68	29	30	6.55

TABLE 19

TASKS WHICH BEST DIFFERENTIATE BETWEEN
DAFSC 49350 CONUS AND OVERSEAS PERSONNEL

TASKS		CONUS	O/S	DIFFERENCE
F257	ADJUST LINE AMPLIFIERS	35	70	-35
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	28	62	-34
H449	PERFORM FAULT ISOLATION ON SIGNALING EQUIPMENT	20	54	-34
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	38	72	-34
H453	PERFORM ON-CALL PATCHES	37	71	-34
F323	PERFORM MANUAL TERMINAL IMPEDANCE TESTS	20	54	-33
H463	REMOVE OR REPLACE DELAY EQUALIZERS	7	31	-23
H396	DIRECT ALTERNATE ROUTING OF CIRCUITS	35	59	-23
G371	PERFORM BASEBAND SWEEPS	14	36	-23
F305	PERFORM INSERTION LOSS (FREQUENCY RESPONSE) TESTS ON CIRCUIT COMPONENTS	12	34	-23
H443	PERFORM FAULT ISOLATION ON FREQUENCY DIVISION MULTIPLEX (FDM) SYSTEMS	19	41	-23
H459	REMOVE OR REPLACE AMPLITUDE EQUALIZERS	9	31	-23
F263	CONDUCT ACCEPTANCE TESTING OF NEW SYSTEMS, CIRCUITS, OR EQUIPMENT	35	58	-22
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	42	64	-22
F260	ADJUST SIGNALING UNITS	15	37	-22
F353	PERFORM TOTAL PEAK TELEGRAPH DISTORTION TESTS	12	34	-22
F314	PERFORM MANUAL HARMONIC DISTORTION TESTS	23	45	-22
F353	PERFORM TOTAL PEAK TELEGRAPH DISTORTION TESTS	12	34	-22
F293	PERFORM IN-SERVICE QC ON DIRECT CURRENT (DC) CIRCUITS	19	39	-21
F307	PERFORM LINK PERFORMANCE ASSESSMENT (LPA) OR PERFORMANCE MONITORING PROGRAM	9	29	-21
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	44	66	-21
G355	CALCULATE LINK IDLE CHANNEL NOISE (ICN) VALUES	14	34	-20
H455	PERFORM OPERATOR MAINTENANCE ON TELETYPEWRITERS, SUCH AS CHANGING RIBBONS OR REPLACING PAPER	27	46	-20
G375	PERFORM C-NOTCHED NOISE MEASUREMENTS ON TIME DIVISION MULTIPLEXING/PULSE CODE MODULATION (TDM/PCM) SYSTEMS	21	41	-20
G366	MEASURE PILOTS AT BASEBAND LEVEL	16	35	-20
F337	PERFORM OUT-OF-SERVICE QC ON SIGNALING UNITS	14	34	-20
G357	DETERMINE LINK STATUS	11	31	-20
G364	MEASURE GROUP PILOT LEVELS	14	34	-20
E242	PREPARE WIDEBAND OUTAGE RECORD FORMS	12	33	-20
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	33	52	-19
G370	PERFORM BASEBAND LOADING (BBL) MEASUREMENTS	14	33	-19

TABLE 20

COMPARISON OF BACKGROUND AND JOB SATISFACTION INFORMATION
FOR DAFSC 49350 CONUS AND OVERSEAS PERSONNEL

	CONUS PERSONNEL (N=406)	OVERSEAS PERSONNEL (N=429)
AVERAGE NUMBER OF TASKS PERFORMED:	78	103
AVERAGE MONTHS TICF	48	48
AVERAGE MONTHS TAFMS	74	71
PERCENT IN FIRST ENLISTMENT:	32	27
JOB SATISFACTION DATA:		
PERCENT FINDING THEIR JOB INTERESTING	73	81
PERCENT PERCEIVING THEIR TALENTS ARE UTILIZED AT LEAST FAIRLY WELL	75	82
PERCENT PERCEIVING THEIR TRAINING IS UTILIZED AT LEAST FAIRLY WELL	71	83
PERCENT PLANNING TO REENLIST	54	59

Table 21 presents job satisfaction data for TAFMS groups. Overall, job satisfaction indicators are satisfactory. When compared to a comparative sample of similar personnel surveyed in 1987, job satisfaction data are, in most cases, equal to or slightly higher for AFSC 493X0 personnel in most categories. The one exception is reenlistment intentions which are slightly lower. Being assigned to the routine and field-related functions was stated as the most probable cause for this low desire to reenlist. When comparing job satisfaction indicators of the current and previous survey, it is interesting to note that current personnel reflect higher job satisfaction than those of the previous survey (see Table 23).

Job satisfaction indicators for the specialty job groups were also generally good, with Control Test Facility Cable Repair Personnel and Systems Evaluators/Quality Assurance Personnel showing the lowest job interest of all the job groups (see Table 22). Only 50 percent of these personnel perceived their job as interesting. This low perception about their job appears to be the result of performing a job which makes use of only routine communications control skills and does not involve the more challenging and desirable communications control tasks.

Comparison to Previous OSR

The results of this survey report were compared with those of the previous occupational survey report of the Communications-Computer Systems Control career ladder, dated December 1980, to determine what, if any, changes have occurred since that time. Overall, the career ladder has remained fairly stable, with the exception of a name change from Telecommunications Systems Control career ladder to Communications-Computer Systems Control career ladder change of AFSC number from AFSC 307X0 to 493X0 and the addition of soldering functions. Specialty jobs appear to generally parallel those found in 1980. Perhaps the only minor difference seen between the two studies involves the scope of jobs. In 1988, AFSC 493X0 personnel are performing a broader job. In 1980, AFSC 307X0 personnel were performing more specialized jobs. As an example, a job such as microwave Personnel was distinctively described in the 1980 survey. However, in the current study, tasks related to microwave are still being performed, but are subsumed within other jobs.

IMPLICATIONS

The results of this occupational survey report indicate that, overall, the Communications-Computer Systems Control career ladder is relatively stable. Although the career ladder title changed from Telecommunications Systems Control to Communications-Computer Systems Control, the AFSC changed from 307X0 to 493X0, and soldering functions were added, the main duties and responsibilities of the ladder did not change drastically.

The job structure analysis identified a diverse specialty. The 12 major job clusters contain many of the same tasks. The 11 independent job types (IJT) encompass specialized functions, and personnel in those IJTs perform

TABLE 21

COMPARISON OF JOB SATISFACTION INDICATORS BY TAFMS GROUPS
(PERCENT MEMBERS RESPONDING*)

	MONTHS TAFMS					
	1-48		49-96		97+	
	493X0 (N=497)	COMP SAMPLE** (N=3,237)	493X0 (N=455)	COMP SAMPLE (N=1,170	493X0 (N=643)	COMP SAMPLE (N=2,227)
EXPRESSED JOB INTEREST:						
INTERESTING	80	56	76	64	74	73
SO-SO	11	23	12	20	13	15
DULL	8	20	11	15	11	11
NO RESPONSE	1	1	1	1	1	1
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	81	64	77	72	76	79
LITTLE OR NOT AT ALL	18	35	22	27	23	20
NO RESPONSE	1	1	1	1	1	1
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO PERFECTLY	80	76	74	72	71	75
LITTLE OR NOT AT ALL	19	23	25	27	28	24
NO RESPONSE	1	1	1	1	1	1
REENLISTMENT INTENTIONS:						
I WILL RETIRE	1	1	1	1	22	21
YES, PROBABLY YES	47	60	58	75	65	69
NO, OR PROBABLY NO	51	38	40	23	12	9
NO RESPONSE	1	1	1	1	1	1

* Columns may not add up to 100 percent due to nonresponse or rounding
** Includes direct support AFSCs 391X0, 392X0, 552X5, 566X0, 603X0, and 612X1 surveyed in 1987.

TABLE 22

JOB SATISFACTION INFORMATION FOR 493XO CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	SYS TEST & EVAL TEAM PERSONNEL (STG044)	TELECOMM SYS ANALYS SVS PERSONNEL (STG150)	SHIFT LEADER/ SUPVs (STG143)	NETWORK CONTROLLERS (STG239)	AUTODIN SWITCHING CTR PERS (STG282)
EXPRESSED JOB INTEREST:					
INTERESTING	79	91	53	90	75
SO-SO	11	0	21	10	13
DULL	7	9	26	0	12
MY JOB UTILIZES MY TALENTS:					
FAIRLY WELL OR BETTER	75	91	53	85	72
VERY LITTLE OR NOT AT ALL	21	9	47	15	28
MY JOB UTILIZES MY TRAINING:					
FAIRLY WELL OR BETTER	75	91	62	73	81
VERY LITTLE OR NOT AT ALL	25	9	38	27	19
REENLISTMENT INTENTIONS:					
I WILL RETIRE	21	0	3	5	3
YES OR PROBABLY YES	57	64	62	52	47
NO OR PROBABLY NO	21	36	35	43	50

* Responses may not add to 100 percent due to rounding or no response
** 1986 Comparative Sample taken from Direct Support Specialities: AFSC 493XO (N=2,140)

TABLE 22 (CONTINUED)

JOB SATISFACTION INFORMATION FOR 493XO CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	SHIFT SUPV & NCOICs STG308	CRITICOMM CONTROL PERSONNEL STG375	OVERSEAS DCS TECH CONTROL STG130	DCS AUTO TECH CONTR PERSONNEL STG158	COMM SYS TECH CONTR PERSONNEL STG125
EXPRESSED JOB INTEREST:					
INTERESTING	60	60	61	93	85
SO-SO	20	20	21	7	9
DULL	20	20	18	0	5
MY JOB UTILIZES MY TALENTS:					
FAIRLY WELL OR BETTER	70	80	71	79	85
VERY LITTLE OR NOT AT ALL	30	20	29	21	15
MY JOB UTILIZES MY TRAINING:					
FAIRLY WELL OR BETTER	70	80	72	100	91
VERY LITTLE OR NOT AT ALL	30	20	28	0	8
REENLISTMENT INTENTIONS:					
I WILL RETIRE	5	0	0	0	1
YES OR PROBABLY YES	60	100	57	50	56
NO OR PROBABLY NO	35	0	43	50	41

* Responses may not add to 100 percent due to rounding or no response
** 1986 Comparative Sample taken from Direct Support Specialities: AFSC 493X0 (N=2,140)

TABLE 22 (CONTINUED)

JOB SATISFACTION INFORMATION FOR 493XO CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	CIRCUIT ACTION PERS (STG190)	CONT TEST FCLTY CABLE RPR (STG200)	COMBAT COMM PERS (STG238)	COMM SYS CONTROL SUPV (STG072)	TRNG NCOs (STG847)
EXPRESSED JOB INTEREST:					
INTERESTING	85	25	65	79	82
SO-SO	11	60	16	11	18
DULL	4	20	19	9	0
MY JOB UTILIZES MY TALENTS:					
FAIRLY WELL OR BETTER	91	40	70	83	100
VERY LITTLE OR NOT AT ALL	10	60	30	16	0
MY JOB UTILIZES MY TRAINING:					
FAIRLY WELL OR BETTER	78	0	62	77	94
VERY LITTLE OR NOT AT ALL	21	100	38	22	6
REENLISTMENT INTENTIONS:					
I WILL RETIRE	3	20	5	25	0
YES OR PROBABLY YES	54	60	64	62	71
NO OR PROBABLY NO	43	20	30	13	24

* Responses may not add to 100 percent due to rounding or no response
** 1986 Comparative Sample taken from Direct Support Specialities: AFSC 493XO (N=2,140)

TABLE 22 (CONTINUED)

JOB SATISFACTION INFORMATION FOR 493X0 CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	BASE CONTROL TEST FCLTY PERS (STG169)	TRNG INSTRs (STG111)	MOBILITY/ CONTINGENCY PERSONNEL (STG052)	PERFORMANCE MONITORS & EVAL PERS (STG037)
EXPRESSED JOB INTEREST:				
INTERESTING	80	71	47	58
SO-SO	10	17	6	19
DULL	10	13	47	23
MY JOB UTILIZES MY TALENTS:				
FAIRLY WELL OR BETTER	70	88	29	59
VERY LITTLE OR NOT AT ALL	30	12	71	40
MY JOB UTILIZES MY TRAINING:				
FAIRLY WELL OR BETTER	30	67	29	55
VERY LITTLE OR NOT AT ALL	70	29	71	44
REENLISTMENT INTENTIONS:				
I WILL RETIRE	0	13	0	15
YES OR PROBABLY YES	90	58	53	62
NO OR PROBABLY NO	10	29	47	23

* Responses may not add to 100 percent due to rounding or no response
** 1986 Comparative Sample taken from Direct Support Specialities: AFSC 493X0 (N=2,140)

TABLE 22 (CONTINUED)

JOB SATISFACTION INFORMATION FOR 493X0 CLUSTERS AND INDEPENDENT JOB TYPES
(PERCENT RESPONDING)

	PRIMARY CONT CTR/ SATELLITE SYS PERS (STG211)	COMPUTER OPERATOR ADM TECH (STG079)	COMM SYS ADM MGRS (STG133)	SYS EVAL QA PERS (STG187)
EXPRESSED JOB INTEREST:				
INTERESTING	67	92	58	54
SO-SO	11	5	31	8
DULL	22	0	11	31
MY JOB UTILIZES MY TALENTS:				
FAIRLY WELL OR BETTER	56	92	65	69
VERY LITTLE OR NOT AT ALL	44	8	34	23
MY JOB UTILIZES MY TRAINING:				
FAIRLY WELL OR BETTER	22	71	35	53
VERY LITTLE OR NOT AT ALL	78	29	65	47
REENLISTMENT INTENTIONS:				
I WILL RETIRE	11	18	23	46
YES OR PROBABLY YES	56	63	46	46
NO OR PROBABLY NO	33	18	31	8

* Responses may not add to 100 percent due to rounding or no response
** 1986 Comparative Sample taken from Direct Support Specialities: AFSC 493X0 (N=2,140)

TABLE 23

COMPARISON OF PREVIOUS AND CURRENT JOB SATISFACTION INDICATORS BY TAFMS GROUPS
(PERCENT MEMBERS RESPONDING*)

	1-48 MOS TAFMS)		49-96 MOS TAFMS		97+ MOS TAFMS	
	1988 (N=474)	1980 (N=414)	1988 (N=455)	1980 (N=369)	1988 (N=643)	1980 (N=503)
EXPRESSED JOB INTEREST:						
INTERESTING	80	71	76	70	74	66
SO-SO	11	15	12	17	13	14
DULL	8	13	11	13	11	19
NO RESPONSE	1	1	1	-	1	1
PERCEIVED UTILIZATION OF TALENTS:						
FAIRLY WELL TO PERFECTLY	81	74	77	26	76	74
LITTLE OR NOT AT ALL	18	24	22	74	23	25
NO RESPONSE	1	1	1	-	1	1
PERCEIVED USE OF TRAINING:						
FAIRLY WELL TO PERFECTLY	80	71	74	74	71	69
LITTLE OR NOT AT ALL	19	29	25	25	28	30
NO RESPONSE	1	-	1	1	1	1
REENLISTMENT INTENTIONS:						
I WILL RETIRE	1	-	1	-	22	-
YES OR PROBABLY YES	47	32	58	42	65	65
NO OR PROBABLY NO	51	67	40	57	12	33
NO RESPONSE	1	1	1	1	1	2

* Columns may not add up to 100 percent due to nonresponse or rounding
** Includes direct support AFSCs 391X0, 392X0, 552X5, 566X0, 603X0, and 612X1 surveyed in 1987

mostly those tasks related to that specialized function. CONUS and overseas personnel are performing essentially the same jobs. Job satisfaction indicators generally are satisfactory and the AFR 39-1 Specialty Descriptions are broad, accurate, and complete.

Survey data indicate the current STS provides support for the tasks and jobs performed by career ladder personnel; however, several items are not supported by OSR data and several unreferenced tasks need to be reviewed for possible inclusion. The POI also generally was providing training in areas and subjects relevant to the jobs graduates would be expected to perform. There were, however, several unsupported areas and several unreferenced tasks. Unreferenced tasks and unsupported POI objectives should also be examined to determine if the objectives should be covered and if tasks should be included in this document.

APPENDIX A

TABLE A1

REPRESENTATIVE TASKS PERFORMED BY
SYSTEMS TEST AND EVALUATION TEAM PERSONNEL CLUSTER
(STG044, N=28)

TASKS		PERCENT MEMBERS PERFORMING
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	75
F317	PERFORM MANUAL IMPULSE NOISE TESTS	71
F310	PERFORM MANUAL AMPLITUDE VS FREQUENCY TESTS (FREQUENCY RESPONSE TEST)	71
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	68
F319	PERFORM MANUAL PHASE JITTER TESTS	68
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	64
F272	PERFORM AUTOMATED AMPLITUDE VS FREQUENCY TESTS (FREQUENCY RESPONSE TESTS)	61
F278	PERFORM AUTOMATED IMPULSE NOISE TESTS	57
J605	PACK OR UNPACK EQUIPMENT	54
G361	MEASURE CHANNEL LEVELS ON BASEBAND SIGNALS	54
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	54
F280	PERFORM AUTOMATED PHASE JITTER TESTS	54
F281	PERFORM AUTOMATED QUALITY CHECKS ON STANDARD TEST TONE LEVELS	50
F315	PERFORM MANUAL HITS/DROPOUTS TESTS	50
G364	MEASURE GROUP PILOT LEVELS	50
G366	MEASURE PILOTS AT BASEBAND LEVEL	50
F274	PERFORM AUTOMATED ENVELOPE DELAY DISTORTION TESTS	50
F318	PERFORM MANUAL NONLINEAR DISTORTION TESTS	50
J609	PICK UP OR DELIVER EQUIPMENT AT PREVISION MEASUREMENT EQUIPMENT LABORATORY (PMEL)	46
F311	PERFORM MANUAL BIT ERROR RATE TESTS ON DIGITAL CIRCUITS AND EQUIPMENT	46
F322	PERFORM MANUAL SINGLE TONE INTERFERENCE TESTS (CROSSTALK TEST)	46
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	46
G370	PERFORM BASEBAND LOADING (BBL) MEASUREMENTS	46
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	46
G371	PERFORM BASEBAND SWEEPS	46
F279	PERFORM AUTOMATED NONLINEAR DISTORTION TESTS	46
F276	PERFORM AUTOMATED HITS/DROPOUTS TESTS	46
F283	PERFORM AUTOMATED TERMINAL IMPEDANCE TESTS	43
F282	PERFORM AUTOMATED SINGLE TONE INTERFERENCE TESTS (CROSSTALK TEST)	39
F306	PERFORM INTERMODULATION DISTORTION TESTS	36
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	36
J610	SCHEDULE EQUIPMENT FOR PMEL SERVICING	36
E201	PREPARE CIRCUIT PARAMETER TEST DATA FORMS	29
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	25

TABLE A2

REPRESENTATIVE TASKS PERFORMED BY
TELECOMMUNICATION SERVICE SYSTEMS ANALYSIS PERSONNEL CLUSTER
(STG150, N=11)

TASKS		PERCENT MEMBERS PERFORMING
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	91
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	91
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	91
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	82
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	73
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	73
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	64
H453	PERFORM ON-CALL PATCHES	64
H429	PERFORM EQUIPMENT LOOP-BACKS	64
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	55
F257	ADJUST LINE AMPLIFIERS	55
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	55
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	55
E190	PARTICIPATE IN ALERTS OR RECALLS	55
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	55
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	45
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	45
F281	PERFORM AUTOMATED QUALITY CHECKS ON STANDARD TEST TONE LEVELS	45
F278	PERFORM AUTOMATED IMPULSE NOISE TESTS	45
J607	PERFORM ESCORT DUTIES	45
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	45
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	36
F317	PERFORM MANUAL IMPULSE NOISE TESTS	36
H471	REMOVE OR REPLACE PADS	36
E227	PREPARE MASTER STATION LOG FARMS	36
F288	PERFORM IN-SERVICE QC ON COMPOSITE SIGNAL TRANSMISSION LEVELS	36
G366	MEASURE PILOTS AT BASEBAND LEVEL	27
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	27
G370	PERFORM BASEBAND LOADING (BBL) MEASUREMENTS	27
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	27
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	27
H425	PERFORM CONTINUITY CHECKS ON CROSS-CONNECT CORDS	27
E200	PREPARE CIRCUIT OUTAGE REPORTS	18

TABLE A3

REPRESENTATIVE TASKS PERFORMED BY
SHIFT LEADERS AND SUPERVISORS CLUSTER
(STG143, N=34)

TASKS		PERCENT MEMBERS PERFORMING
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	97
E190	PARTICIPATE IN ALERTS OR RECALLS	85
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	85
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	79
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	76
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	74
H429	PERFORM EQUIPMENT LOOP-BACKS	74
E227	PREPARE MASTER STATION LOG FORMS	71
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	62
E113	COORDINATE POWER CHANGEOVERS WITH COMMUNICATIONS SUPPORT FACILITIES	53
E200	PREPARE CIRCUIT OUTAGE REPORTS	53
E240	PREPARE TROUBLE AND RESTORATION RECORD FORMS	50
E418	PATCH COMMERCIAL EQUIPMENT, LINES, OR CHANNELS	50
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	50
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	47
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	47
E239	PREPARE TECHNICAL CONTROL COMMUNICATIONS WORK ORDER FORMS	44
H431	PERFORM FAULT ISOLATION ON AUTODIN SWITCHING CENTER EQUIPMENT	44
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	41
E215	PREPARE HAZCON REPORTS	41
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	41
E211	PREPARE DCS STATUS REPORTS	38
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	38
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	38
H420	PATCH MODEMS	32
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	32
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	32
E114	COORDINATE REQUESTS FOR MAINTENANCE ASSISTANCE WITH OFFICE OF PRIMARY RESPONSIBILITY (OPR)	29
E161	MAINTAIN MASTER STATION LOG FORMS	26
E238	PREPARE SCHEDULED DOWNTIME REQUESTS	26
E212	PREPARE EQUIPMENT OUTAGE REPORTS	24
F328	PERFORM OUT-OF-SERVICE QC ON CRYPTOGRAPHIC EQUIPMENT	24
F293	PERFORM IN-SERVICE QC ON DIRECT CURRENT (DC) CIRCUITS	21

TABLE A4

REPRESENTATIVE TASKS PERFORMED BY
NETWORK CONTROLLERS CLUSTER
(STG239, N=40)

TASKS		PERCENT MEMBERS PERFORMING
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	95
H429	PERFORM EQUIPMENT LOOP-BACKS	90
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS	90
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	85
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	88
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	85
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	80
G372	PERFORM BIT ERROR RATE TEST ON HIGH SPEED CIRCUITS	80
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	78
H439	PERFORM FAULT ISOLATION ON DATA CIRCUITS TO OUTLYING BUILDINGS	73
H410	OPERATE COMPUTER DIAGNOSTIC EQUIPMENT, SUCH AS DATA SCOPES AND PROTOCOL	70
H389	CONFIGURE MODEMS	68
F311	PERFORM MANUAL BIT ERROR RATE TESTS ON DIGITAL CIRCUITS AND EQUIPMENT	68
H420	PATCH MODEMS	67
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	63
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	63
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	63
H438	PERFORM FAULT ISOLATION ON COMPUTER SYSTEMS AND ASSOCIATED PERIPHERALS	63
H401	LOAD (REKEY) CRYPTOGRAPHIC MATERIAL	58
H450	PERFORM FAULT ISOLATION ON TIME DIVISION MULTIPLEX (TDM) SYSTEMS	55
H418	PATCH COMMERCIAL EQUIPMENT, LINES, OR CHANNELS	55
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	55
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	55
H411	OPERATE CRYPTOGRAPHIC EQUIPMENT	53
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	53
F273	PERFORM AUTOMATED BIT ERROR RATE TESTS ON DIGITAL CIRCUITS	52
E200	PREPARE CIRCUIT OUTAGE REPORTS	45
H412	OPERATE ON-LINE COMPUTER SYSTEM DIAGNOSTIC TERMINALS	45
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	43
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	42

TABLE A5

REPRESENTATIVE TASKS PERFORMED BY
AUTODIN SWITCHING CENTER PERSONNEL CLUSTER
(STG282, N=32)

TASKS		PERCENT MEMBERS PERFORMING
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	100
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	97
H429	PERFORM EQUIPMENT LOOP-BACKS	97
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	94
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	84
E190	PARTICIPATE IN ALERTS OR RECALLS	81
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	75
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	75
E128	MAINTAIN CIRCUIT OUTAGE REPORTS	69
E239	PREPARE TECHNICAL CONTROL COMMUNICATIONS WORK ORDER FORMS	69
E240	PREPARE TROUBLE AND RESTORATION RECORD FORMS	69
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	66
H431	PERFORM FAULT ISOLATION ON AUTODIN SWITCHING CENTER EQUIPMENT	66
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	63
H420	PATCH MODEMS	63
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	63
F289	PERFORM IN-SERVICE QC ON CRYPTOGRAPHIC EQUIPMENT	62
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	59
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	59
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	59
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	56
E200	PREPARE CIRCUIT OUTAGE REPORTS	56
E211	PREPARE DCS STATUS REPORTS	53
H439	PERFORM FAULT ISOLATION ON DATA CIRCUITS TO OUTLYING BUILDINGS	50
E161	MAINTAIN MASTER STATION LOG FORMS	50
H438	PERFORM FAULT ISOLATION ON COMPUTER SYSTEMS AND ASSOCIATED PERIPHERALS	50
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	50
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	50
F265	MONITOR CIRCUIT DISPLAY STATUS BOARDS	41
F268	MONITOR VISUAL AND AUDIO ALARMS USING CIRCUIT MONITORING SYSTEMS	41

TABLE A6

REPRESENTATIVE TASKS PERFORMED BY
SHIFT SUPERVISORS & NCOICs IJT
(STG308, N=20)

TASKS		PERCENT MEMBERS PERFORMING
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	100
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	100
B31	COUNSEL PERSONNEL	95
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	95
C78	WRITE APR	95
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	90
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	90
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	85
D85	CONDUCT OJT	85
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	85
H429	PERFORM EQUIPMENT LOOP-BACKS	85
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	80
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	80
E190	PARTICIPATE IN ALERTS OR RECALLS	80
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	80
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	75
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	70
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	70
H420	PATCH MODEMS	70
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	65
A4	DETERMINE WORK PRIORITIES	65
D97	EVALUATE OJT TRAINEES	65
E227	PREPARE MASTER STATION LOG FORMS	65
H396	DIRECT ALTERNATE ROUTING OF CIRCUITS	65
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	65
H418	PATCH COMMERCIAL EQUIPMENT, LINES, OR CHANNELS	65
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	60
E240	PREPARE TROUBLE AND RESTORATION RECORD FORMS	60
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	60
B32	DIRECT CIRCUIT OR SYSTEM CHECKS	55
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	55
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	55
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	35

TABLE A7

REPRESENTATIVE TASKS PERFORMED BY
CRITICOMM CONTROLLERS IJT
(STG375, N=5)

TASKS		PERCENT MEMBERS PERFORMING
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	100
E113	COORDINATE POWER CHANGEOVERS WITH COMMUNICATIONS SUPPORT FACILITIES	100
H420	PATCH MODEMS	100
H433	PERFORM FAULT ISOLATION ON AUTOSEVOCOM	100
H421	PATCH MULTIPLEXERS	100
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	100
E132	MAINTAIN COMMUNICATIONS OUTAGE REPORTS	80
H418	PATCH COMMERCIAL EQUIPMENT, LINES, OR CHANNELS	80
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	80
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	80
F311	PERFORM MANUAL BIT ERROR RATE TESTS ON DIGITAL CIRCUITS AND EQUIPMENT	80
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	80
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	80
H450	PERFORM FAULT ISOLATION ON TIME DIVISION MULTIPLEX (TDM) SYSTEMS	80
E212	PREPARE EQUIPMENT OUTAGE REPORTS	80
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	80
E128	MAINTAIN CIRCUIT OUTAGE REPORTS	80
E203	PREPARE COMMUNICATION OUTAGE REPORTS	80
F273	PERFORM AUTOMATED BIT ERROR RATE TESTS ON DIGITAL CIRCUITS	80
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	80
E125	MAINTAIN CIRCUIT DATA FORMS	80
E190	PARTICIPATE IN ALERTS OR RECALLS	80
F266	MONITOR CIRCUIT/SYSTEM EYE PATTERN DISPLAYS	80
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	80
E180	MAINTAIN TROUBLE AND RESTORATION RECORD FORMS	60
H454	PERFORM OPERATOR MAINTENANCE ON COMPUTER PRINTERS, SUCH AS SETTING PAPER THICKNESS AND REPLACING PAPER	60
H411	OPERATE CRYPTOGRAPHIC EQUIPMENT	60
E114	COORDINATE REQUESTS FOR MAINTENANCE ASSISTANCE WITH OFFICE OF PRIMARY RESPONSIBILITY (OPR)	60
E112	COORDINATE INSTALLATIONS WITH USERS OR ASSOCIATED FACILITIES	60
E161	MAINTAIN MASTER STATION LOG FORMS	60
F284	PERFORM BIT ERROR RATE TESTS ON ANALOG CIRCUITS (QUASI)	60

TABLE A8

REPRESENTATIVE TASKS PERFORMED BY
OVERSEAS DCS TECHNICAL CONTROLLERS CLUSTER
(STG130, N=28)

TASKS		PERCENT MEMBERS PERFORMING
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	100
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	100
F317	PERFORM MANUAL IMPULSE NOISE TESTS	93
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	82
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	75
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	79
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	71
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	64
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	71
H429	PERFORM EQUIPMENT LOOP-BACKS	64
F310	PERFORM MANUAL AMPLITUDE VS FREQUENCY TEST (FREQUENCY RESPONSE TEST)	64
F315	PERFORM MANUAL HITS/DROPOUTS TESTS	64
F319	PERFORM MANUAL PHASE JITTER TESTS	61
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	61
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	57
F318	PERFORM MANUAL NONLINEAR DISTORTION TESTS	57
F257	ADJUST LINE AMPLIFIERS	54
F322	PERFORM MANUAL SINGLE TONE INTERFERENCE TESTS (CROSSTALK TEST)	50
F314	PERFORM MANUAL HARMONIC DISTORTION TESTS	50
E190	PARTICIPATE IN ALERTS OR RECALLS	46
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	46
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	46
F288	PERFORM IN-SERVICE QC ON COMPOSITE SIGNAL TRANSMISSION LEVELS	46
F323	PERFORM MANUAL TERMINAL IMPEDANCE TESTS	46
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	43
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	43

TABLE A9

REPRESENTATIVE TASKS PERFORMED BY
DCS AUTOMATED TECHNICAL CONTROL IJT
(STG158, N=14)

TASKS		PERCENT MEMBERS PERFORMING
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	100
F281	PERFORM AUTOMATED QUALITY CHECKS ON STANDARD TEST TONE LEVELS	100
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	93
F278	PERFORM AUTOMATED IMPULSE NOISE TESTS	93
F274	PERFORM AUTOMATED ENVELOPE DELAY DISTORTION TESTS	93
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	93
F272	PERFORM AUTOMATED AMPLITUDE VS FREQUENCY TESTS (FREQUENCY RESPONSE TESTS)	86
F275	PERFORM HARMONIC DISTORTION TESTS	86
F280	PERFORM AUTOMATED PHASE JITTER TESTS	86
F273	PERFORM AUTOMATED BIT ERROR RATE TESTS ON DIGITAL CIRCUITS	79
H429	PERFORM EQUIPMENT LOOP-BACKS	79
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	79
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	79
F276	PERFORM AUTOMATED HITS/DROPOUTS TESTS	71
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	71
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	64
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	64
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	64
E190	PARTICIPATE IN ALERTS OR RECALLS	64
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	64
F279	PERFORM AUTOMATED NONLINEAR DISTORTION TESTS	64
F257	ADJUST LINE AMPLIFIERS	64
E200	PREPARE CIRCUIT OUTAGE REPORTS	57
G372	PERFORM BIT ERROR RATE TEST ON HIGH SPEED DATA CIRCUITS	57
E242	PREPARE WIDEBAND OUTAGE RECORD FORMS	50
F288	PERFORM IN-SERVICE QC ON COMPOSITE SIGNAL TRANSMISSION LEVELS	50
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	43
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	43
A4	DETERMINE WORK PRIORITIES	43
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	43
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	36

TABLE A10

REPRESENTATIVE TASKS PERFORMED BY
COMMUNICATION SYSTEMS TECHNICAL CONTROL PERSONNEL CLUSTER
(STG125, N=541)

TASKS		PERCENT MEMBERS PERFORMING
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	94
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	92
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	87
F324	PERFORM MAXIMUM CHANGE IN AUDIO FREQUENCY TESTS	87
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	85
F317	PERFORM MANUAL IMPULSE NOISE TESTS	84
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	84
H453	PERFORM ON-CALL PATCHES	83
F313	PERFORM MANUAL ENVELOPE DELAY DISTORTION TESTS	82
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	82
H429	PERFORM EQUIPMENT LOOP-BACKS	82
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	81
F310	PERFORM MANUAL AMPLITUDE VS FREQUENCY TEST (FREQUENCY RESPONSE TEST)	81
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	80
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	79
F257	ADJUST LINE AMPLIFIERS	79
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	79
F325	PERFORM MAXIMUM NET LOSS VARIATION TESTS	78
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	74
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	72
H396	DIRECT ALTERNATE ROUTING OF CIRCUITS	71
H457	PERFORM TIME HACKS ON MASTER STATION CLOCKS	71
F268	PERFORM IN-SERVICE QC ON COMPOSITE SIGNAL TRANSMISSION LEVELS	70
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	67
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	65
H391	COCRDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	63
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	63
E200	PREPARE CIRCUIT OUTAGE REPORTS	59
E227	PREPARE MASTER STATION LOG FORMS	58
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	55
E240	PREPARE TROUBLE AND RESTORATION RECORD FORMS	55
G371	PERFORM BASEBAND SWEEPS	54
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	48

TABLE A11

REPRESENTATIVE TASKS PERFORMED BY
CIRCUIT ACTIONS PERSONNEL CLUSTER
(STG190, N=84)

TASKS		PERCENT MEMBERS PERFORMING
E125	MAINTAIN CIRCUIT DATA FORMS	94
E116	DIRECT WIRING OF CROSS-CONNECTIONS ON DISTRIBUTION FRAMES OR MATRIX BOARDS	89
H477	WIRE CROSS-CONNECTS ON DISTRIBUTION FRAMES	90
E197	PREPARE CIRCUIT DATA FORMS	89
E117	IMPLEMENT ACTIVATION OR CHANGES OF CIRCUITS	88
H478	WIRE TEMPORARY CROSS-CONNECTS ON DISTRIBUTION FRAMES	86
J600	LABEL PATCH BAYS OR EQUIPMENT	85
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	83
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	82
E127	MAINTAIN CIRCUIT HISTORY FOLDERS	81
C62	ESTABLISH CHANGES IN CIRCUITS OR CHANNELS	79
E112	COORDINATE INSTALLATIONS WITH USERS OR ASSOCIATED FACILITIES	79
H429	PERFORM EQUIPMENT LOOP-BACKS	77
E199	PREPARE CIRCUIT HISTORY FOLDERS	76
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	76
B36	DIRECT LABELING OF PATCH BAYS	74
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	73
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	73
E124	MAINTAIN CABLE RECORD FORMS	71
H461	REMOVE OR REPLACE COMPONENTS ON DISTRIBUTION FRAMES	68
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	68
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	67
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	65
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	65
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	65
E196	PREPARE CABLE RECORD FORMS	64
F263	CONDUCT ACCEPTANCE TESTING OF NEW SYSTEMS. CIRCUITS, OR EQUIPMENT	64
B28	COORDINATE OPERATIONAL CHANGES TO CIRCUITS OR CHANNELS WITH USERS OR DEFENSE COMMUNICATIONS AGENCY (DCA)	63
E245	STORE, UPDATE, OR PRINT COMPUTERIZED CIRCUIT DATA	63
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	62
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	60
E207	PREPARE CORRESPONDENCE	57
A16	FORMULATE CIRCUIT CUTOVER PLANS	56

TABLE A12

REPRESENTATIVE TASKS PERFORMED BY
CONTROL TEST FACILITY CABLE REPAIR PERSONNEL IJT
(STG200, N=5)

TASKS		PERCENT MEMBERS PERFORMING
E124	MAINTAIN CABLE RECORD FORMS	100
A4	DETERMINE WORK PRIORITIES	80
A21	PLAN WORK ASSIGNMENTS	80
D85	CONDUCT OJT	80
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	80
H434	PERFORM FAULT ISOLATION ON CABLE SYSTEMS	80
E197	PREPARE CIRCUIT DATA FORMS	80
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	80
E196	PREPARE CABLE RECORD FORMS	80
H440	PERFORM FAULT ISOLATION ON DDN SYSTEMS AND CIRCUITS	80
H477	WIRE CROSS-CONNECTS ON DISTRIBUTION FRAMES	80
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	80
E116	DIRECT WIRING OF CROSS-CONNECTIONS ON DISTRIBUTION FRAMES OR MATRIX BOARDS	80
E125	MAINTAIN CIRCUIT DATA FORMS	80
H478	WIRE TEMPORARY CROSS-CONNECTS ON DISTRIBUTION FRAMES	80
H439	PERFORM FAULT ISOLATION ON DATA CIRCUITS TO OUTLYING BUILDINGS	60
H436	PERFORM FAULT ISOLATION ON COMMERCIAL PHONE SYSTEMS	60
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	60
B32	DIRECT CIRCUIT OR SYSTEM CHECKS	60
J599	DISPATCH MAINTENANCE SPECIALISTS OR EQUIPMENT	60
E127	MAINTAIN CIRCUIT HISTORY FOLDERS	60
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	60
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	60
J611	SECURE FACILITIES	60
B31	COUNSEL PERSONNEL	60
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	40
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	40
H461	REMOVE OR REPLACE COMPONENTS ON DISTRIBUTION FRAMES	40
E117	IMPLEMENT ACTIVATION OR CHANGES OF CIRCUITS	40
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	40
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	40
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	40
D89	DETERMINE OJT REQUIREMENTS	40
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	40

TABLE A13

REPRESENTATIVE TASKS PERFORMED BY
COMBAT COMMUNICATIONS SYSTEMS PERSONNEL IJT
(STG238, N=117)

TASKS		PERCENT MEMBERS PERFORMING
J604	OPERATE MILITARY VEHICLES	97
I488	CAMOUFLAGE MOBILE SITES	97
I491	CHECK CONTINUITY BETWEEN LOCAL TECHNICAL CONTROL AND USERS	96
J605	PACK OR UNPACK EQUIPMENT	96
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	95
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	93
I572	PREPARE MOBILE VANS FOR TRANSPORT OR STORAGE	93
I524	FIRE M-16 WEAPONS	92
I534	LOAD OR UNLOAD MOBILE COMMUNICATIONS EQUIPMENT ON AND OFF VEHICLES AND PALLETS	92
I542	OPERATE ENVIRONMENTAL CONTROL UNITS	91
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	91
H429	PERFORM EQUIPMENT LOOP-BACKS	90
I573	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	90
I492	CHECK CONTINUITY OF CABLES OR IN-HOUSE WIRING	90
I590	ROAD CHECK VEHICLES	90
E190	PARTICIPATE IN ALERTS OR RECALLS	87
I533	LAY CABLES	87
H426	PERFORM CONTINUITY CHECKS ON PATCH CORDS	86
I566	PERFORM SAFETY CHECKS ON VEHICLES	86
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	84
I493	CLEAN WEAPONS	84
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	83
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	81
J596	CLEAN OR WAX MILITARY VEHICLES	81
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	79
I515	DON OR DOFF CHEMICAL SUITS	75
I494	CONDUCT PERFORMANCE ASSESSMENT OF TACTICAL OR MOBILE COMMUNICATIONS SYSTEMS	71
I486	APPLY POWER TO FACILITIES	70
I522	ERECT OR DISMANTLE 12-MAN TENTS	70
I559	PERFORM INTERFACE CHECKS OF MOBILE COMMUNICATIONS FACILITIES	70
H387	CHANGE FREQUENCIES ON RADIO SYSTEMS	69
E227	PREPARE MASTER STATION LOG FORMS	68
I523	ERECT OR DISMANTLE 5-MAN TENTS	67
J611	SECURE FACILITIES	64
I574	PREPARE SITES FOR MOBILE COMMUNICATION	62

TABLE A14

REPRESENTATIVE TASKS PERFORMED BY
COMMUNICATION SYSTEMS CONTROL SUPERVISORY PERSONNEL CLUSTER
(STG072, N=247)

TASKS		PERCENT MEMBERS PERFORMING
C78	WRITE APR	91
B31	COUNSEL PERSONNEL	94
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	89
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	85
A4	DETERMINE WORK PRIORITIES	85
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	80
E190	PARTICIPATE IN ALERTS OR RECALLS	80
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	78
A24	SCHEDULE LEAVES	77
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	76
A7	DEVELOP WORK PROCEDURES	74
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	72
A21	PLAN WORK ASSIGNMENTS	72
B25	CONDUCT BRIEFINGS	72
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	70
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	70
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	68
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	66
E207	PREPARE CORRESPONDENCE	65
C73	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	54
D82	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	64
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	62
D85	CONDUCT OJT	62
D89	DETERMINE OJT REQUIREMENTS	62
C64	EVALUATE INDIVIDUALS FOR PROMOTION	60
C65	EVALUATE INSPECTION REPORTS OR PROCEDURES	60
C60	ANALYZE WORKLOAD REQUIREMENTS	60
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	59
D93	DEVELOP TRAINING PLANS	57
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	53
B50	PREPARE OPERATIONAL MESSAGES	51
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	49
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	43
C80	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	36

TABLE A15

REPRESENTATIVE TASKS PERFORMED BY
TRAINING NCOs IJT
(STG847, N=17)

TASKS		PERCENT MEMBERS PERFORMING
B31	COUNSEL PERSONNEL	100
D93	DEVELOP TRAINING PLANS	100
D110	WRITE TEST QUESTIONS	100
D108	SCORE TESTS	100
D81	ADMINISTER TESTS	100
D97	EVALUATE OJT TRAINEES	94
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	94
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	94
D89	DETERMINE OJT REQUIREMENTS	94
D98	EVALUATE PROGRESS OF STUDENTS	88
D99	EVALUATE TRAINING METHODS	88
D101	MAINTAIN MMICS RECURRING TRAINING FORECASTS	88
D105	PLAN OJT	88
D107	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	88
D106	PREPARE TRAINING REPORTS	94
D100	MAINTAIN MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEMS (MMICS) TASK TABLE LIST	82
D85	CONDUCT OJT	82
D95	DIRECT TRAINING PROGRAMS, OTHER THAN OJT	76
D91	DEVELOP JOB PROFICIENCY GUIDES (JPG)	76
D103	MAINTAIN MMICS WORKCENTER TASK ASSIGNMENTS	76
D102	MAINTAIN MMICS TRAINING VISIBILITY LEDGERS	71
E190	PARTICIPATE IN ALERTS OR RECALLS	71
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	65
D84	CONDUCT FACILITY RATING TRAINING	65
D109	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	65
D82	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	59
A12	ESTABLISH FACILITY PROFICIENCY RATING PROGRAMS	58
D96	ESTABLISH STUDY REFERENCE FILES	53
C78	WRITE APR	47
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	47
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	41
B25	CONDUCT BRIEFINGS	41
D90	DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	35
E207	PREPARE CORRESPONDENCE	35
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	29
B47	INITIATE PERSONNEL ACTION REQUESTS	24
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	24
B45	IMPLEMENT TELECOMMUNICATIONS FACILITIES TESTING PROGRAMS	18

TABLE A16

REPRESENTATIVE TASKS PERFORMED BY
BASE CONTROL TEST FACILITY PERSONNEL IJT
(STG169, N=10)

TASKS		PERCENT MEMBERS PERFORMING
H434	PERFORM FAULT ISOLATION ON CABLE SYSTEMS	100
H439	PERFORM FAULT ISOLATION ON DATA CIRCUITS TO OUTLYING BUILDINGS	90
H429	PERFORM EQUIPMENT LOOP-BACKS	90
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	90
H476	RUN DATA LINES TO COMPUTER TERMINALS	80
J604	OPERATE MILITARY VEHICLES	80
F311	PERFORM MANUAL BIT ERROR RATE TESTS ON DIGITAL CIRCUITS AND EQUIPMENT	70
G372	PERFORM BIT ERROR RATE TEST ON HIGH SPEED DATA CIRCUITS	70
H437	PERFORM FAULT ISOLATION ON COMPUTER NETWORK CIRCUITS (MODEMS)	70
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	60
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	60
E190	PARTICIPATE IN ALERTS OR RECALLS	60
H400	INSTALL CIRCUITS ON OUTLYING BUILDINGS	60
H475	REPAIR HIGH SPEED DATA CIRCUITS	60
H477	WIRE CROSS-CONNECTS ON DISTRIBUTION FRAMES	60
H389	CONFIGURE MODEMS	60
H448	PERFORM FAULT ISOLATION ON QUASI-ANALOG MODULATION (QAM) SYSTEMS	60
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	50
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	50
E245	STORE, UPDATE, OR PRINT COMPUTERIZED CIRCUIT DATA	50
H438	PERFORM FAULT ISOLATION ON COMPUTER SYSTEMS AND ASSOCIATED PERIPHERALS	50
I532	ISOLATE CIRCUIT OR SYSTEM MALFUNCTIONS	50
J596	CLEAN OR WAX MILITARY VEHICLES	50
J605	PACK OR UNPACK EQUIPMENT	50
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	50
H450	PERFORM FAULT ISOLATION ON TIME DIVISION MULTIPLEX (TDM) SYSTEMS	40
I590	ROAD CHECK VEHICLES	40
I566	PERFORM SAFETY CHECKS ON VEHICLES	40
E112	COORDINATE INSTALLATIONS WITH USERS OR ASSOCIATED FACILITIES	40
J609	PICK UP OR DELIVER EQUIPMENT AT PRECISION MEASUREMENT EQUIPMENT LABORATORY (PMEL)	40
E128	MAINTAIN CIRCUIT OUTAGE REPORTS	30
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	20

TABLE A17

REPRESENTATIVE TASKS PERFORMED BY
TRAINING INSTRUCTORS (TECHNICAL SCHOOL) JOT
(STG111, N=24)

TASKS		PERCENT MEMBERS PERFORMING
D81	ADMINISTER TESTS	100
D108	SCORE TESTS	96
D86	CONDUCT RESIDENT COURSE CLASSROOM TRAINING	87
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	83
D98	EVALUATE PROGRESS OF STUDENTS	83
B31	COUNSEL PERSONNEL	79
D110	WRITE TEST QUESTIONS	71
F257	ADJUST LINE AMPLIFIERS	54
G364	MEASURE GROUP PILOT LEVELS	54
H472	REMOVE OR REPLACE SIGNALING UNITS	54
G366	MEASURE PILOTS AT BASEBAND LEVEL	50
F252	ADJUST AMPLITUDE EQUALIZERS	42
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	42
H430	PERFORM FAULT ISOLATION ON ANALOG CIRCUITS	42
E190	PARTICIPATE IN ALERTS OR RECALLS	42
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	42
H453	PERFORM ON-CALL PATCHES	42
D92	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	37
F253	ADJUST DELAY EQUALIZERS	37
H470	REMOVE OR REPLACE LINE AMPLIFIERS	37
D90	DETERMINE RESIDENT COURSE TRAINING REQUIREMENTS	33
G363	MEASURE GROUP PILOT FREQUENCIES	33
D93	DEVELOP TRAINING PLANS	29
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	29
G368	MEASURE SUPERGROUP PILOT LEVELS	29
H420	PATCH MODEMS	29
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	25
F316	PERFORM MANUAL IDLE CHANNEL NOSE TESTS	25
F260	ADJUST SIGNALING UNITS	25
F320	PERFORM MANUAL QC ON STANDARD TEST TONE LEVELS	25
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	25
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	21
F254	ADJUST ECHO SUPPRESSORS	21
F255	ADJUST FOUR-WIRE TERMINATING SETS	21
F317	PERFORM MANUAL IMPULSE NOISE TESTS	21
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	17
F273	PERFORM AUTOMATED BIT ERROR RATE TESTS ON DIGITAL CIRCUITS	5

TABLE A18

REPRESENTATIVE TASKS PERFORMED BY
MOBILITY/CONTINGENCY PERSONNEL CLUSTER
(STG052, N=17)

TASKS		PERCENT MEMBERS PERFORMING
I566	PERFORM SAFETY CHECKS ON VEHICLES	82
I590	ROAD CHECK VEHICLES	76
J604	OPERATE MILITARY VEHICLES	71
E190	PARTICIPATE IN ALERTS OR RECALLS	65
I488	CAMOUFLAGE MOBILE SITES	65
J605	PACK OR UNPACK EQUIPMENT	65
I534	LOAD OR UNLOAD MOBILE COMMUNICATIONS EQUIPMENT ON AND OFF VEHICLES AND PALLETS	65
I493	CLEAN WEAPONS	59
I572	PREPARE MOBILE VANS FOR TRANSPORT OR STORAGE	59
I524	FIRE M-16 WEAPONS	59
I573	PREPARE PERSONAL CLOTHING AND EQUIPMENT FOR DEPLOYMENT	53
J596	CLEAN OR WAX MILITARY VEHICLES	47
H424	PERFORM AUDIO CHANNEL LOOP-BACKS	47
H387	CHANGE FREQUENCIES ON RADIO SYSTEMS	47
I522	ERECT OR DISMANTLE 12-MAN TENTS	47
F316	PERFORM MANUAL IDLE CHANNEL NOISE TESTS	41
H397	DIRECT FREQUENCY CHANGES OR CHECKS	41
I515	DON OR DOFF CHEMICAL SUITS	41
I552	PALLETIZE CARGO BUILD-UP FOR AIRLIFT	41
I542	OPERATE ENVIRONMENTAL CONTROL UNITS	41
E227	PREPARE MASTER STATION LOG FORMS	35
E161	MAINTAIN MASTER STATION LOG FORMS	35
F277	PERFORM AUTOMATED IDLE CHANNEL NOISE TESTS	35
I520	ERECT OR DISMANTLE ANTENNAS	35
J601	MAINTAIN GROUNDS, SUCH AS MOWING LAWNS AND TRIMMING EDGES	35
F281	PERFORM AUTOMATED QUALITY CHECKS ON STANDARD TEST TONE LEVELS	35
H420	PATCH MODEMS	35
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	29
E125	MAINTAIN CIRCUIT DATA FORMS	29
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	29
I490	CHECK CONTINUITY BETWEEN LOCAL AND DISTANT TECHNICAL CONTROLS	29
I574	PREPARE SITES FOR MOBILE COMMUNICATION	29
I575	RECONFIGURE AN/TSC 107 VANS	29
J611	SECURE FACILITIES	29
D93	DEVELOP TRAINING PLANS	24
E219	PREPARE INVENTORY OF MISSION ESSENTIAL AND ITEMS	24
E124	MAINTAIN CABLE RECORD FORMS	6
E160	MAINTAIN TROUBLE AND RESTORATION RECORD FORMS	6

TABLE A19

REPRESENTATIVE TASKS PERFORMED BY
PERFORMANCE MONITORS AND EVALUATION PERSONNEL CLUSTER
(STG037, N=52)

TASKS		PERCENT MEMBERS PERFORMING
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	63
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	62
E128	MAINTAIN CIRCUIT OUTAGE REPORTS	56
E132	MAINTAIN COMMUNICATIONS OUTAGE REPORTS	56
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	54
E161	MAINTAIN MASTER STATION LOG FORMS	50
E244	STORE CLASSIFIED INFORMATION OR MATERIALS	48
E179	MAINTAIN TREND ANALYSIS FILES	40
E246	STORE, UPDATE, OR PRINT COMPUTERIZED CIRCUIT/GROUP OUTAGE RECORDS	40
E203	PREPARE COMMUNICATION OUTAGE REPORTS	37
E135	MAINTAIN COMMUNICATIONS SYSTEM/FACILITY STATUS REPORTS	33
E146	MAINTAIN EQUIPMENT OUTAGE REPORTS	35
E245	STORE, UPDATE, OR PRINT COMPUTERIZED CIRCUIT DATA	29
E200	PREPARE CIRCUIT OUTAGE REPORTS	31
E174	MAINTAIN SCHEDULED DOWNTIME REQUESTS	40
E190	PARTICIPATE IN ALERTS OR RECALLS	63
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	58
E207	PREPARE CORRESPONDENCE	35
E151	MAINTAIN HAZARDOUS CONDITION (HAZCON) REPORTS	35
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	35
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	35
E212	PREPARE EQUIPMENT OUTAGE REPORTS	25
E186	MONITOR MISSION IMPAIRMENT STATUS	23
E227	PREPARE MASTER STATION LOG FORMS	33
E180	MAINTAIN TROUBLE AND RESTORATION RECORD FORMS	35
B50	PREPARE OPERATIONAL MESSAGES	40
B25	CONDUCT BRIEFINGS	38
E238	PREPARE SCHEDULED DOWNTIME REQUESTS	31
E144	MAINTAIN DEFENSE COMMUNICATIONS SYSTEMS (DCS) STATUS REPORTS ON CIRCUITS OR CHANNELS	25
E152	MAINTAIN IN-SERVICE OR OUT-OF-SERVICE QUALITY CONTROL REPORTS	31
E164	MAINTAIN MISSION IMPAIRMENT REPORTS	17
E187	MONITOR OPERATIONAL EQUIPMENT STATUS	23
E189	NOTIFY COMMUNICATIONS SUPPORT FACILITIES OF SEVERE WEATHER WARNING CALLS	25
E129	MAINTAIN CIRCUIT PARAMETER TEST DATA FORMS	25

TABLE A20

REPRESENTATIVE TASKS PERFORMED BY
PRIMARY CONTROL CENTER/SALTELLITE SYSTEMS PERSONNEL IJT
(STG211, N=9)

TASKS		PERCENT MEMBERS PERFORMING
K631	PERFORM REBOOT/RESTART PROCEDURES	100
K613	CREATE MASTER SATELLITE ACCESS SCHEDULES	89
K623	PERFORM PRIMARY CONTROL CENTER (PCC) ACCESS APPROVALS	89
K624	PERFORM PCC ACCESS CANCELLATIONS	89
K625	PERFORM PCC ACCESS CHANGES	89
K626	PERFORM PCC ACCESS DENIALS	89
K627	PERFORM PCC ACCESS PRE-EMPTIONS	89
K633	PERFORM SATELLITE MINIMIZE PROCEDURES	89
K614	MAINTAIN MASTER SATELLITE ACCESS SCHEDULES	78
K630	PERFORM PCC MESSAGE PROCESSING PROCEDURES	78
K628	PERFORM PCC ACCESS REQUESTS	78
E244	STORE CLASSIFIED INFORMATION OR MATERIALS	78
B50	PREPARE OPERATIONAL MESSAGES	78
K629	PERFORM PCC END-OF-MONTH CLOSEOUT PROCEDURES	78
E243	PROCESS FORMS, REPORTS, OR CORRESPONDENCE USING WORD PROCESSORS AND KEYBOARDS	67
B27	COORDINATE FREQUENCY UTILIZATION WITH USING AGENCIES	67
B28	COORDINATE OPERATIONAL CHANGES TO CIRCUITS OR CHANNEL WITH USERS OR DEFENSE COMMUNICATIONS AGENCY (DCA)	67
K615	MONITOR SATELLITE ANOMALIES	67
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	56
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	56
E190	PARTICIPATE IN ALERTS OR RECALLS	56
H454	PERFORM OPERATOR MAINTENANCE ON COMPUTER PRINTERS, SUCH AS SETTING PAPER THICKNESS AND REPLACING PAPER	56
K619	OPERATE GENERAL PURPOSE SCAN PROGRAMS	56
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	56
B30	COORDINATE SPECIAL COMMUNICATIONS REQUIREMENTS WITH USERS OR DCA	44
H415	OPERATIONALLY CHECK SATELLITE COMMUNICATIONS SYSTEMS	44
K621	PERFORM DOSS MENU OPERATIONS	33
K622	PERFORM MULTIPOINT COMMUNICATIONS NETWORK (MCN) FUNCTIONS	33
K617	OPERATE DEFENSE OPERATIONAL SUPPORT SYSTEM (DOSS) PERIPHERAL EQUIPMENT	33
E207	PREPARE CORRESPONDENCE	33
H397	DIRECT FREQUENCY CHANGES OR CHECKS	33
E161	MAINTAIN MASTER STATION LOG FORMS	33
E221	PREPARE JOINT MESSAGE FORMS	33
E173	MAINTAIN SATELLITE COMMUNICATIONS REPORT	33
E227	PREPARE MASTER STATION LOG FORMS	33

TABLE A21

REPRESENTATIVE TASKS PERFORMED BY
COMMUNICATION SYSTEMS SHIFT LEADERS JT
(STG159, N=15)

TASKS		PERCENT MEMBERS PERFORMING
C78	WRITE APR	100
B31	COUNSEL PERSONNEL	93
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	93
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	86
D82	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	86
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	80
A24	SCHEDULE LEAVES	80
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	80
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	73
A4	DETERMINE WORK PRIORITIES	73
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	73
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	60
D85	CONDUCT OJT	60
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	53
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	53
C74	INSPECT AREA SECURITY OR CLASSIFIED MATERIAL INVENTORIES	53
E190	PARTICIPATE IN ALERTS OR RECALLS	53
A21	PLAN WORK ASSIGNMENTS	46
C73	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	40
C60	ANALYZE WORKLOAD REQUIREMENTS	40
B25	CONDUCT BRIEFINGS	40
A7	DEVELOP WORK PROCEDURES	40
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	40
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	40
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	33
H450	PERFORM FAULT ISOLATION ON TIME DIVISION MULTIPLEX (TDM) SYSTEMS	33
E115	DESTROY CLASSIFIED INFORMATION OR MATERIALS	33
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	33
D89	DETERMINE OJT REQUIREMENTS	26
E215	PREPARE HAZCON REPORTS	26
B32	DIRECT CIRCUIT OR SYSTEM CHECKS	26
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	26
C64	EVALUATE INDIVIDUALS FOR PROMOTION	20

TABLE A22

REPRESENTATIVE TASKS PERFORMED BY
OJT SUPERVISORS JT
(GP0364, N=9)

TASKS		PERCENT MEMBERS PERFORMING
B31	COUNSEL PERSONNEL	100
D82	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	100
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	100
D97	EVALUATE OJT TRAINEES	100
H396	DIRECT ALTERNATE ROUTING OF CIRCUITS	100
D89	DETERMINE OJT REQUIREMENTS	89
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	89
H443	PERFORM FAULT ISOLATION ON FREQUENCY DIVISION MULTIPLEX (FDM) SYSTEMS	89
J607	PERFORM ESCORT DUTIES	89
D105	PLAN OJT	89
D93	DEVELOP TRAINING PLANS	78
D94	DIRECT OJT PROGRAMS	78
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	78
D110	WRITE TEST QUESTIONS	78
D99	EVALUATE TRAINING METHODS	78
E190	PARTICIPATE IN ALERTS OR RECALLS	78
F261	ANALYZE CAUSES OF AUDIO CIRCUIT FAILURES	78
A7	DEVELOP WORK PROCEDURES	67
A4	DETERMINE WORK PRIORITIES	67
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	67
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	67
D107	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	67
D108	SCORE TESTS	67
D109	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	67
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	67
D85	CONDUCT OJT	67
D81	ADMINISTER TESTS	56
D91	DEVELOP JOB PROFICIENCY GUIDES (JPG)	56
C78	WRITE APR	56
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	56
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	56
A21	PLAN WORK ASSIGNMENTS	56
B32	DIRECT CIRCUIT OR SYSTEM CHECKS	56
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	56
D101	MAINTAIN MMICS RECURRING TRAINING FORECASTS	44
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	33
C65	EVALUATE INSPECTION REPORTS OR PROCEDURES	33

TABLE A23

REPRESENTATIVE TASKS PERFORMED BY
CIRCUIT HISTORY AND DATA SUPERVISORS
(GP0379, N=9)

TASKS		PERCENT MEMBERS PERFORMING
D85	CONDUCT OJT	100
H435	PERFORM FAULT ISOLATION ON CIRCUITS USING BLACK DIGITAL PATCH BAYS	100
H446	PERFORM FAULT ISOLATION ON HIGH SPEED DATA CIRCUITS	100
E117	IMPLEMENT ACTIVATION OF CHANGES OF CIRCUITS	89
D97	EVALUATE OJT TRAINEES	89
H429	PERFORM EQUIPMENT LOOP-BACKS	89
H410	OPERATE COMPUTER DIAGNOSTIC EQUIPMENT, SUCH AS DATA SCOPES AND PROTOCOL	89
E112	COORDINATE INSTALLATIONS WITH USERS OR ASSOCIATED FACILITIES	89
D93	DEVELOP TRAINING PLANS	89
E111	COORDINATE CIRCUIT AND SYSTEM OUTAGES WITH USERS OR ASSOCIATED FACILITIES	89
H428	PERFORM DIGITAL CIRCUIT LOOP-BACKS	89
E245	STORE, UPDATE, OR PRINT COMPUTERIZED CIRCUIT DATA	89
H419	PATCH CRYPTOGRAPHIC EQUIPMENT	89
E250	TYPE FORMS, REPORTS, OR CORRESPONDENCE	89
H391	COORDINATE CIRCUIT RELEASES WITH SUBSCRIBERS	88
B34	DIRECT FAULT ISOLATION OR CORRECTION OF CIRCUIT OR SYSTEM MALFUNCTIONS	88
B28	COORDINATE OPERATIONAL CHANGES TO CIRCUITS OR CHANNELS WITH USERS OR DEFENSE COMMUNICATIONS AGENCY (DCA)	78
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	78
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	78
D89	DETERMINE OJT REQUIREMENTS	78
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	78
F262	ANALYZE CAUSES OF DIGITAL CIRCUIT FAILURES	78
H431	PERFORM FAULT ISOLATION ON AUTODIN SWITCHING CENTER	78
C62	ESTABLISH CHANGES IN CIRCUITS OR CHANNELS	67
E127	MAINTAIN CIRCUIT HISTORY FOLDERS	67
E199	PREPARE CIRCUIT HISTORY FOLDERS	67
F263	CONDUCT ACCEPTANCE TESTING OF NEW SYSTEMS, CIRCUITS, OR EQUIPMENT	67
H390	COORDINATE CIRCUIT OR EQUIPMENT PROBLEMS WITH OTHER TECHNICAL CONTROLS OR COMMUNICATIONS FACILITIES	67
H427	PERFORM CRYPTOGRAPHIC SYNCHRONIZATIONS	67
E197	PREPARE CIRCUIT DATA FORMS	67
D84	CONDUCT FACILITY RATING TRAINING	67
E125	MAINTAIN CIRCUIT DATA FORMS	56

APPENDIX B

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

				TNG EMP	ATI	1ST JOB	1ST ENL	5- LEV	7- LEV	TOT SPL	TSK DIF
2B. OPERATIONS SECURITY (OPSEC)											
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(1). DEFINITION OF OPSEC											
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(2). HISTORY OF OPSEC	-	-	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(3). RELATIONSHIP OF OPSEC TO OTHER SECURITY PROGRAMS SUCH AS COMSEC, INFORMATION SECURITY AND PHYSICAL SECURITY	-	-	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(4). COMMON OPSEC VULNERABILITIES	-	-	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(5). OPSEC SIGNIFICANCE OF UNCLASSIFIED DATA AND PROCEDURES	-	-	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2B(6). SPECIFIC OPSEC VULNERABILITIES OF AFSC 493X0	A	B	B								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

				TNG EMP	ATI	1ST JOB	1ST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
2C. ELECTRONIC COMBAT (EC)											
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(1). BACKGROUND AND HISTORY	-	A	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(2). TERMS AND DEFINITIONS											
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(2)(A). ELECTRONIC COUNTERMEASURES (ECM)	-	A	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(2)(B). ELECTRONIC COUNTER-COUNTER-MEASURES (ECCM)	-	A	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(2)(C). ELECTRONIC SUPPORT MEASURES (ESM)	-	A	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(3). INTERACTION BETWEEN ESM, ECM, AND ECCM	-	A	-								
B43 IMPLEMENT SECURITY PROGRAMS				1.14	2	1	2	7	19	10	5.04
2C(4). REPORT MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI)	A	-	-								

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5- LEV	7- LEV	TOT SPL	TSK DIF
E162	MAINTAIN MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI) REPORTS	2.30	7	6	7	6	7	6	4.91
E228	PREPARE MIJI REPORTS	3.13	7	8	11	9	7	8	6.11
B43	IMPLEMENT SECURITY PROGRAMS	1.14	2	1	2	7	19	10	5.04
2D.	PHYSICAL SECURITY								
B43	IMPLEMENT SECURITY PROGRAMS	1.14	2	1	2	7	19	10	5.04
B43	IMPLEMENT SECURITY PROGRAMS	1.14	2	1	2	7	19	10	5.04
4.	SUPERVISION								
A24	SCHEDULE LEAVES	.38	2	0	2	14	42	21	3.15
B25	CONDUCT BRIEFINGS	1.11	2	7	13	27	53	32	5.41
B26	CONDUCT STAFF MEETINGS	.14	2	0	1	3	19	9	5.54
B54	SUPERVISE CIVILIAN PERSONNEL, OTHER THAN FOREIGN NATIONALS	.09	2	1	1	1	3	2	6.45
B58	SUPERVISE FOREIGN NATIONALS	.29	2	0	1	2	4	2	7.42
B59	SUPERVISE PERSONNEL WITH AFSC OTHER THAN AFSC 493X0	.04	2	1	1	5	15	8	6.28
C70	EVALUATE SUGGESTIONS	.13	2	1	2	5	19	10	6.24
C73	ENDORSE AIRMAN PERFORMANCE REPORTS (APR)	.46	2	0	2	9	32	16	5.11
C79	WRITE CIVILIAN PERFORMANCE RATINGS	.00	***	0	0	1	1	1	6.99
4A.	ORIENT NEW PERSONNEL								
B46	INDOCTRINATE NEWLY ASSIGNED PERSONNEL	1.29	2	8	11	30	52	34	4.19
B48	INTERPRET POLICIES, DIRECTIVES, OR PROCEDURES FOR SUBORDINATES	.95	2	4	9	26	51	32	5.63
B597	CONDUCT FACILITY FAMILIARIZATION VISITS	.68	2	7	10	17	27	19	4.15
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	.34	1	0	2	7	33	15	1.67
4B.	EVALUATE WORK PERFORMANCE OF SUBORDINATE PERSONNEL								
C64	EVALUATE INDIVIDUALS FOR PROMOTION	.64	2	0	1	9	29	15	6.20
C78	WRITE APR	2.21	2	0	3	31	56	36	6.82

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5- LEV	7- LEV	TOT SPL	TSK DIF
4C.	INITIATE CORRESPONDENCE - - -								
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	.04	2	4	5	7	22	12	7.13
B51	PREPARE RECOMMENDATIONS FOR AWARDS OR DECORATIONS	.61	2	0	1	13	43	22	6.75
E207	PREPARE CORRESPONDENCE	1.80	2	4	6	17	53	27	6.05
A2	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	.34	1	0	2	7	33	15	1.67
4D.	PLAN WORK ASSIGNMENTS AND PRIORITIES - - -								
A4	DETERMINE WORK PRIORITIES	1.82	2	15	19	36	61	42	5.13
A5	DEVELOP ORGANIZATIONAL CHARTS	.18	2	5	5	9	20	12	3.61
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	.04	2	4	5	7	22	12	7.13
A21	PLAN WORK ASSIGNMENTS	.98	2	1	3	17	41	23	4.80
C60	ANALYZE WORKLOAD REQUIREMENTS	.63	2	1	3	10	34	17	6.26
4E.	SCHEDULE WORK ASSIGNMENTS - - -								
A7	DEVELOP WORK PROCEDURES	.98	2	5	9	21	46	27	6.54
A21	PLAN WORK ASSIGNMENTS	.98	2	1	3	17	41	23	4.80
D82	ASSIGN ON-THE-JOB TRAINING (OJT) TRAINERS	.77	2	1	2	14	31	18	3.87
D83	ASSIGN RESIDENT COURSE INSTRUCTORS	.05	2	0	0	1	2	1	4.87
E143	MAINTAIN DAILY STANDBY ROSTERS	.45	2	0	2	5	6	5	3.73
E175	MAINTAIN SCHEDULES OF TECHNICIAN AVAILABILITY	.79	2	1	3	10	24	13	4.18
E210	PREPARE DAILY STANDBY ROSTERS	.45	2	0	0	2	5	3	4.19
A1	ASSIGN PERSONNEL TO DUTY POSITIONS	.52	1	3	4	17	40	23	2.85
4F.	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL ACTIVITIES - - -								
A6	DEVELOP PLANS TO INFORM COMMUNICATIONS CIRCUIT USERS OF CHANGES IN CIRCUIT CONFIGURATIONS	.66	2	4	6	11	27	13	5.14
A8	DEVELOP WORKING AGREEMENTS WITH USING AGENCIES OR HOST BASES	.04	2	4	5	7	22	12	7.13
A15	ESTABLISH STANDARD OPERATING PROCEDURES (SOP)	.63	2	0	3	11	38	19	6.34

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
4G.	ESTABLISH RESOURCE REQUIREMENTS								
A3	DETERMINE REQUIREMENTS FOR SPACE, PERSONNEL, EQUIPMENT, OR SUPPLIES	.39	2	2	5	13	47	23	5.35
A9	DRAFT BUDGET REQUIREMENTS	.04	2	0	1	4	19	9	6.00
A10	DRAFT RECOMMENDATIONS FOR SYSTEM IMPROVEMENTS	.54	2	2	3	7	30	14	7 39
B47	INITIATE PERSONNEL ACTION REQUESTS	.50	2	0	1	6	27	13	4.36
B52	PREPARE REQUISITIONS FOR EQUIPMENT OR SUPPLIES	1.13	2	1	4	11	32	17	5.67
C63	EVALUATE BUDGET REQUIREMENTS	.04	2	0	1	3	18	8	7.34
D107	PROCURE TRAINING AIDS, SPACE, OR EQUIPMENT	.39	2	1	4	9	15	10	4.82
5.	TRAINING								
D95	DIRECT TRAINING PROGRAMS, OTHER THAN OJT	.30	2	2	3	8	13	8	6.17
D98	EVALUATE PROGRESS OF STUDENTS	1.18	2	2	6	14	19	14	5.55
5A.	EVALUATE PERSONNEL FOR NEED OF TRAINING								
D97	EVALUATE OJT TRAINEES	1.71	2	4	10	24	33	24	5.66
D109	SELECT INDIVIDUALS FOR SPECIALIZED TRAINING	.21	2	0	1	5	18	9	4.90
5B.	OJT								
A22	PREPARE JOB DESCRIPTIONS	.34	2	1	2	7	31	14	5.66
B47	INITIATE PERSONNEL ACTION REQUESTS	.50	2	0	1	6	27	13	4.36
5B(1).	DEVELOP JOB QUALIFICATION STANDARDS (JQSS)								
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	.68	2	1	4	17	35	21	5.82
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	2.20	2	7	14	33	25	26	6.19
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	.98	2	1	6	27	44	29	5.69

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	.16	2	0	1	4	29	12	5.42
D89	DETERMINE OJT REQUIREMENTS	1.09	2	2	4	17	35	21	6.18
D91	DEVELOP JOB PROFICIENCY GUIDES (JPG)	.95	2	1	2	10	24	13	6.94
D94	DIRECT OJT PROGRAMS	.64	2	1	4	12	24	15	6.45
D105	PLAN OJT	1.16	2	2	6	16	26	17	6.15
B56	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SUPERINTENDENTS (AFSC 49390)	.00	***	0	1	2	3	2	5.24
5B(3).	COUNSEL TRAINEES ON TRAINING PROGRESS								
B31	COUNSEL PERSONNEL	1.13	2	2	9	36	57	39	6.50
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	2.20	2	7	14	33	25	26	6.19
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	.98	2	1	6	27	44	29	5.69
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	.16	2	0	1	4	29	12	5.42
D88	COUNSEL TRAINEES ON TRAINING PROGRESS	1.75	2	5	12	34	40	32	5.29
B56	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SUPERINTENDENTS (AFSC 49390)	.00	***	0	1	2	3	2	5.24
5B(4).	DEVELOP TRAINING MATERIALS								
A12	ESTABLISH FACILITY PROFICIENCY RATING PROGRAMS	.05	2	1	2	5	12	7	6.98
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	2.20	2	7	14	33	25	26	6.19
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	.98	2	1	6	27	44	29	5.69
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	.16	2	0	1	4	29	12	5.42
D92	DEVELOP RESIDENT COURSE OR CAREER DEVELOPMENT COURSE (CDC) CURRICULUM MATERIALS	.23	2	1	1	2	4	3	8.82
D93	DEVELOP TRAINING PLANS	1.88	2	6	12	24	34	25	7.77

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
D96	ESTABLISH STUDY REFERENCE FILES	.48	2	0	2	6	10	7	5.25
D110	WRITE TEST QUESTIONS	.98	2	5	8	15	25	16	6.82
B56	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SUPERINTENDENTS (AFSC 49390)	.00	***	0	1	2	3	2	5.24
5B(5).	MAINTAIN TRAINING RECORDS								
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	2.20	2	7	14	33	25	26	6.19
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	.98	2	1	6	27	44	29	5.69
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	.16	2	0	1	4	29	12	5.42
D100	MAINTAIN MAINTENANCE MANAGEMENT INFORMATION AND CONTROL SYSTEMS (MMICS) TASK TABLE LIST	.91	2	2	3	9	10	8	5.87
D101	MAINTAIN MMICS RECURRING TRAINING FORECASTS	.70	2	2	3	9	11	9	5.61
D102	MAINTAIN MMICS TRAINING VISIBILITY LEDGERS	.70	2	2	3	7	9	7	5.68
D103	MAINTAIN MMICS WORKCENTER TASK ASSIGNMENTS	.79	2	2	4	9	10	9	5.66
D104	MAINTAIN TRAINING RECORDS, CHARTS, OR GRAPHS	2.20	2	8	13	30	37	29	5.24
B56	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SUPERINTENDENTS (AFSC 49390)	.00	***	0	1	2	3	2	5.24
5B(6).	EVALUATE EFFECTIVENESS OF TRAINING PROGRAM								
A13	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	.66	2	1	4	17	35	21	5.82
B53	SUPERVISE APPRENTICE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49330)	2.20	2	7	14	33	25	26	6.19
B55	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SPECIALISTS (AFSC 49350)	.98	2	1	6	27	44	29	5.69
B57	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL TECHNICIANS (AFSC 49370)	.16	2	0	1	4	29	12	5.42
D81	ADMINISTER TESTS	.50	2	5	7	15	22	16	3.30
D84	CONDUCT FACILITY RATING TRAINING	.80	2	3	3	7	15	9	6.01
D99	EVALUATE TRAINING METHODS	.89	2	3	6	13	26	16	6.18
D106	PREPARE TRAINING REPORTS	.48	2	1	3	7	14	8	5.43
D108	SCORE TESTS	.41	1	2	5	13	20	13	2.93

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

		TNG EMP	ATI	1ST JOB	1ST ENL	5- LEV	7- LEV	TOT SPL	TSK DIF
B56	SUPERVISE COMMUNICATIONS-COMPUTER SYSTEMS CONTROL SUPERINTENDENTS (AFSC 49390)	.00	***	0	1	2	3	2	5.24
7.	PUBLICATIONS								
A14	ESTABLISH PUBLICATION LIBRARIES	1.18	2	4	7	10	19	12	4.97
7A.	DEFENSE COMMUNICATIONS AGENCY (DCA) PUBLICATIONS SYSTEM - B -								
E130	MAINTAIN CIRCUIT TRUNK DIRECTIVES	1.91	2	4	3	3	7	5	4.24
16F.	SYSTEMS MANAGEMENT								
16F(1).	ESTABLISH QUALITY CONTROL TEST SCHEDULES - A B								
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	12	12	11	6.23
B38	DIRECT QUALITY CONTROL PROGRAMS	1.63	2	6	8	14	19	14	5.41
B45	IMPLEMENT TELECOMMUNICATIONS FACILITIES TESTING PROGRAMS	1.09	2	5	4	8	12	8	5.58
16F(3).	DEVELOP CONTINGENCY PLANS - A B								
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	12	12	11	6.23
A23	PREPARE UNIT EMERGENCY PLANS	.18	2	1	1	4	14	7	6.64
B30	COORDINATE SPECIAL COMMUNICATIONS REQUIREMENTS WITH USERS OR DCA	1.39	2	15	16	17	31	22	6.58
E137	MAINTAIN CONTINGENCY PLANS	1.11	2	1	3	6	19	10	5.19
16F(4).	DEVELOP RESTORAL PLANS - A B								
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	12	12	11	6.23
16F(6)(A).	CORRESPONDENCE								
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	12	12	11	6.23
B50	PREPARE OPERATIONAL MESSAGES	1.70	2	6	10	17	35	22	5.20
E118	INITIATE RESPONSES TO EMERGENCY ACTION MESSAGES OR DISASTER REPORTS	1.05	2	6	5	6	8	7	6.27

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

				TNG EMP	ATI	IST JOB	IST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
16F(6)(A)1. REQUESTS FOR SERVICE (RFS)	A	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(6)(A)2. TELECOMMUNICATIONS SERVICE REQUEST (TSR)	A	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(6)(A)3. TELECOMMUNICATIONS SERVICE ORDER (TSO)	A	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
B41 IMPLEMENT CHANGES TO TELECOMMUNICATIONS SYSTEMS				.82	2	5	7	11	19	13	6.27
16F(6)(A)4. COMMERCIAL LEASED ACTION MESSAGE (CLAM)	A	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(6)(A)5. COMPLETION REPORTS	A	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(6)(C). SUBMIT COMPLETION REPORTS	-	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(6)(D). UPDATE CIRCUIT AND SYSTEM RECORDS	-	B	-								
A18 PLAN QUALITY CONTROL PROGRAMS				1.45	2	5	6	12	12	11	6.23
16F(7). MAINTAIN FACILITY AND LINK DATA	-	-	-								

STS PERFORMANCE ELEMENTS REFLECTING
LOW PERCENT MEMBERS PERFORMING TASKS (CONTINUED)
(LESS THAN 20 PERCENT MEMBERS PERFORMING)

				TNG EMP	ATI	1ST JOB	1ST ENL	5-LEV	7-LEV	TOT SPL	TSK DIF
E133	MAINTAIN COMMUNICATIONS FACILITIES LINK DATA REPORTS			2.41	7	6	6	8	12	9	5.08
E159	MAINTAIN LINK PERFORMANCE REPORTS			2.30	7	9	8	8	6	7	3.99
B49	MAINTAIN DEFENSE STATION, AUTOMATIC DIGITAL NETWORK STATION, OR REPORTING STATION FILES			1.45	2	4	6	6	11	7	5.27
E135	MAINTAIN COMMUNICATIONS SYSTEM/FACILITY STATUS REPORTS			2.05	2	14	14	14	14	14	4.71
E145	MAINTAIN DCS DATA BASES			1.84	2	4	4	6	14	8	5.08
17C(17).	SINGING POINT	A	C -								
F321	PERFORM MANUAL SINGING POINT TESTS			4.25	11	5	5	4	5	5	5.09
17C(18).	ECHO RETURN LOSS	A	C -								
F312	PERFORM MANUAL ECHO RETURN LOSS TESTS			5.25	11	16	14	9	9	10	5.70
17E(7).	DIGITAL LEVEL	A	C -								
G385	PERFORM VOLTAGE MEASUREMENTS ON TDM/PCM SYSTEMS			4.07	7	9	8	6	4	5	4.82
17I.	USE AUTOMATED TEST EQUIPMENT	2B	C -								
F285	PERFORM CIRCUIT PERFORMANCE MONITORING SYSTEMS SELF-TESTS USING PROTOCOLS			4.02	7	8	9	9	3	6	5.76
H410	OPERATE COMPUTER DIAGNOSTIC EQUIPMENT, SUCH AS DATA SCOPES AND PROTOCOL			3.57	7	10	15	16	13	13	6.41
H412	OPERATE ON-LINE COMPUTER SYSTEM DIAGNOSTIC TERMINALS			3.43	7	9	10	10	9	9	5.95
18C(8).	REGENERATIVE REPEATERS	-	C -								
F259	ADJUST REGENERATIVE REPEATERS			3.93	7	5	5	4	2	3	4.83
18C(13).	LINE ISOLATION UNITS (LIUS)	A	C -								
F258	ADJUST LINE ISOLATION RELAYS (LIR) OR BATTERY ISOLATION RELAYS (BIR)			5.14	11	4	4	4	4	4	5.05

APPENDIX C

POI ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING
(LESS THAN 30 PERCENT MEMBERS PERFORMING)

			TNG EMP	ATI	1ST JOB	1ST ENL	TSK DIF
V 1C.	DEFINE SPECIFIC OPSEC VULNERABILITIES OF AFSC 493X0. STS: 2B(6)	(1.5)					
B43	IMPLEMENT SECURITY PROGRAMS		1.14	2	1	2	5.04
V 1D.	DESCRIBE THE STEPS TO BE TAKEN IN REPORTING OF MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI). STS: 2C(4) MEAS: W	(1.5)					
E162	MAINTAIN MEACONING, INTRUSION, JAMMING, AND INTERFERENCE (MIJI) REPORTS		2.30	7	6	7	4.91
E228	PREPARE MIJI REPORTS		3.13	7	8	11	6.11
B43	IMPLEMENT SECURITY PROGRAMS		1.14	2	1	2	5.04
VII 1D.	IDENTIFY SIGNAL FLOW CONNECTIVITY THROUGH THE DIGITAL PATCHBAYS. STS: 16E(6), 18C(13) MEAS: W	(2.5)					
F258	ADJUST LINE ISOLATION RELAYS (LIR) OR BATTERY ISOLATION RELAYS (BIR)		5.14	11	4	4	5.05
IX 2.	SYSTEMS MANAGEMENT	7					
IX 2A.	DESCRIBE PROCEDURES USED FOR REQUEST FOR SERVICE (RFS). STS: 16F(6)(A)1 MEAS: W	(.5)					
A18	PLAN QUALITY CONTROL PROGRAMS		1.45	2	5	6	6.23
IX 2B.	DESCRIBE HOW TO SUBMIT TELECOMMUNICATIONS SERVICE REQUEST (TSR). STS: 16F(6)(A)2 MEAS: W	(1)					

POI ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING
LESS THAN 30 PERCENT MEMBERS PERFORMING (CONTINUED)

		TNG EMP	ATI	1ST JOB	1ST ENL	TSK DIF
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	6.23
IX 2C.	DESCRIBE THE PROCEDURES REQUIRED FOR ACCEPTANCE OF TELECOMMUNICATIONS SERVICE ORDER (TSO). STS: 16F(6)(A)3 MEAS: W (3.5)					
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	6.23
B41	IMPLEMENT CHANGES TO TELECOMMUNICATIONS SYSTEMS	.82	2	5	7	6.27
0201 IX 2D.	DESCRIBE THE PURPOSE OF A COMMERCIAL LEASED ACTION MESSAGE (CLAM). STS: 16F(6)(A)4 MEAS: W					
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	6.23
XI 2A.	IDENTIFY CHARACTERISTICS ASSOCIATED WITH DIGITAL IMPAIRMENTS. STS: 9B(1), 9E(1), 9E(2), 17E(2), 17E(3), 17E(7), 18C(5) MEAS: W (5)					
G379	PERFORM NONLINEAR DISTORTION MEASUREMENTS ON TDM/PCM SYSTEMS	4.54	11	20	18	5.45
G376	PERFORM COMPRESSION-EXPANSION LINEARITY TESTS	3.91	7	4	5	5.36
G385	PERFORM VOLTAGE MEASUREMENTS ON TDM/PCM SYSTEMS	4.07	7	9	8	4.82
XI 2C.	DESCRIBE THE PROCEDURES REQUIRED FOR ACCEPTANCE OF TELECOMMUNICATIONS SERVICE ORDER (TSO). STS: 16F(6)(A)3 MEAS: W (5)					
A18	PLAN QUALITY CONTROL PROGRAMS	1.45	2	5	6	6.23
B41	IMPLEMENT CHANGES TO TELECOMMUNICATIONS SYSTEMS	.82	2	5	7	6.27

POI ELEMENTS REFLECTING LOW PERCENT MEMBERS PERFORMING
LESS THAN 30 PERCENT MEMBERS PERFORMING (CONTINUED)

		TNG EMP	ATI	1ST JOB	1ST ENL	TSK DIF
XI 2G.	DESCRIBE PROCEDURES FOR THE RECONFIGURATION OF TDM EQUIPMENT. STS: 10D, 10G(10)(A), 16G(10)(B), 16E(16) MEAS: PC (3)					
H389	CONFIGURE MODEMS	3.14	7	14	20	5.84
I 2H.	DESCRIBE PROCEDURES USED TO CHANGE CONFIGURATIONS OF INTERFACE TERMINALS. STS: 10G(10)(A), 10G(10)(B), 16E(15) MEAS: W (3)					
H399	IMPLEMENT TELECOMMUNICATIONS SYSTEMS CONTINGENCY PLANS	3.50	7	20	24	5.96